Waimanalo District Park
Master Plan

FINAL ENVIRONMENTAL ASSESSMENT

CITY AND COUNTY OF HONOLULU

Department of Design and Construction

November 2001

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Master Plan

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Prepared for:

Department of Design and Construction
City and County of Honolulu

Prepared by:

KIMURA INTERNATIONAL

November 2001

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1. INTRODUCTION

1.1 PROJECT SUMMARY

The following table contains a summary of the project and applicable land-use restrictions.

Item	Data
Project Name	Waimanalo District Park Master Plan
Applicant	Department of Design and Construction City and County of Honolulu
Landowner	City and County of Honolulu
Address	41-415 Hihimanu Street Waimanalo, HI
Tax Map Key	4-1-09: 264
Project Area	25.911 acres
Existing Use	Public park
Proposed Project	Various improvements, including repair and construction of recreation facilities, within the existing park grounds
State Land Use Designation	Urban, Agriculture
Sustainable Communities Plan Land Use Designation (Koolaupoko)	Park, Agriculture
Zoning Designation	P-2 General Preservation AG-1 Restricted Agriculture
Flood Insurance Rate Map	Portions in Zones AE, AO, and the floodway
Special Management Area	No
Action Requested	Compliance with Chapter 343, Hawaii Revised Statutes
Basis for the Environmental Assessment	Use of County Lands and Funds
Anticipated Determination	Finding of No Significant Impact (FONSI)
Approving Agency	Department of Design and Construction for the Mayor, City and County of Honolulu

1.2 PROPOSING AGENCY AND ACTION

The City and County of Honolulu, Department of Design and Construction (DDC) proposes to implement the Waimanalo District Park Master Plan by constructing new facilities and repairing existing ones. This environmental assessment covers all master plan improvements that are sited within the boundaries of the existing park. It does not cover the long-range proposals sited on an adjoining State-owned property that would have to be acquired prior to any park development.

The Waimanalo District Park Master Plan was developed through the vision process sponsored by the City and County of Honolulu. The design concepts and plan elements were developed collaboratively by members of the Waimanalo community and a team of technical consultants. The vision process enabled Waimanalo residents to prioritize capital improvements projects in their community and to allocate City and County funds in ways that would address important neighborhood needs.

1.3 PURPOSE OF THE ENVIRONMENTAL ASSESSMENT

Under Chapter 343, Hawaii Revised Statutes (HRS), Act 241, Session Laws of Hawaii (SLH) 1992, and Chapter 200 of Title 11, Department of Health (DOH) Administrative rules, "Environmental Impact Statement Rules," the proposed project involves the use of public funds and is therefore subject to the environmental review process. The DDC is a department of the City and County of Honolulu and will fund the project through funds set aside and allocated to vision projects, as well as other funding sources. This environmental assessment (EA) has been prepared to address potential impacts that may be caused by construction or subsequent operation of the improvements called for in the master plan. Findings from the assessment are used to determine the significance of project-related impacts.

1.4 PERMITS REQUIRED

Governmental permits required for implementation of the proposed action:

Type	Agency
Grading permit	City and County of Honolulu, Department of Planning and Permitting, Civil Engineering Branch
Construction permit	City and County of Honolulu, Department of Planning and Permitting, Civil Engineering Branch
Review and approval of plans to construct a public freshwater swimming pool	State Department of Health
Permit to operate a public freshwater swimming pool	State Department of Health
Possible NPDES permit to drain pool water	State Department of Health

2. PROPOSED ACTION

2.1 PROJECT DESCRIPTION AND LOCATION

The Waimanalo District Park Master Plan examines existing conditions and proposes short- and long-term improvements for park facilities (see detailed description in Section 2.3).

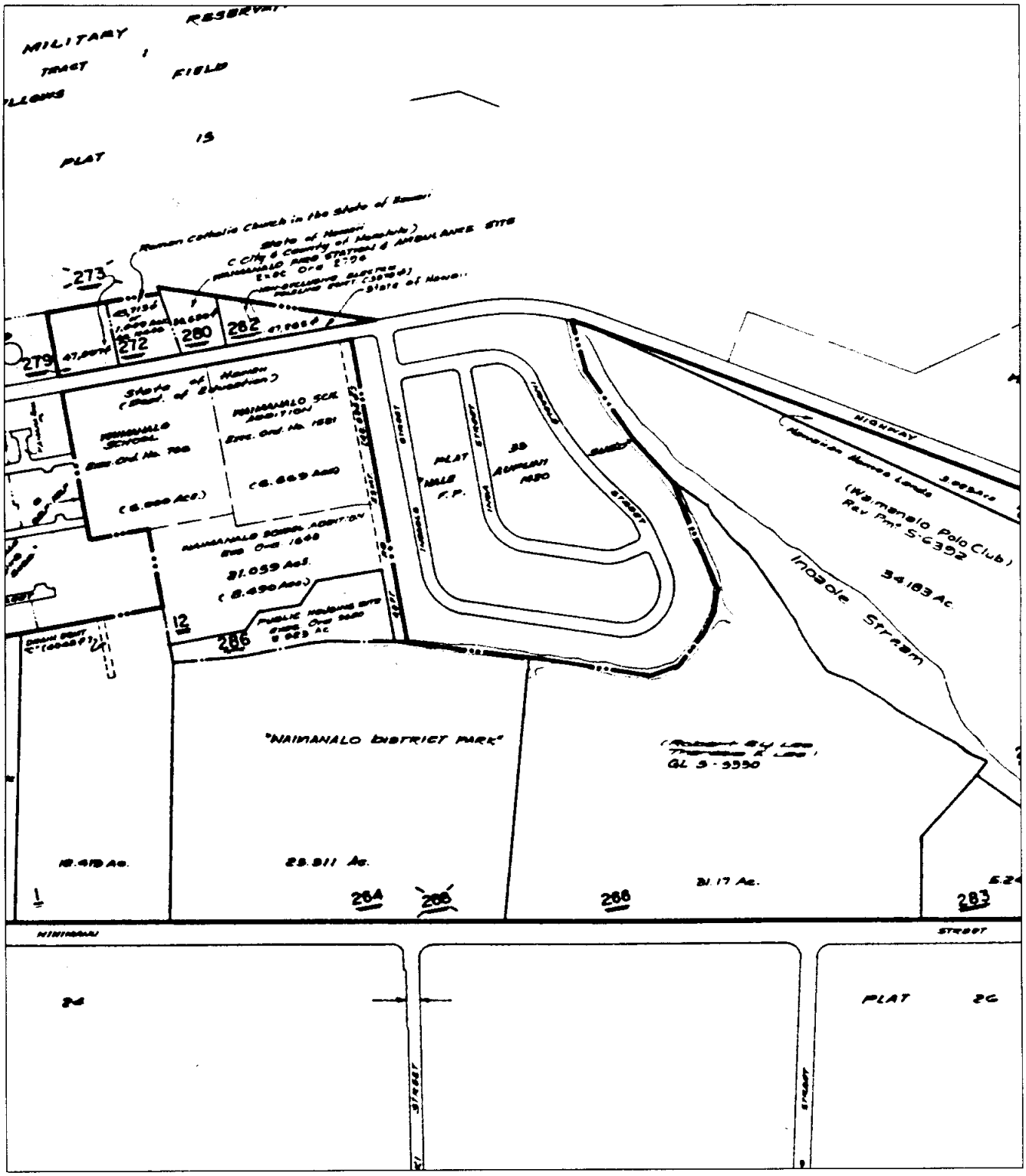
The district park is located at 41-415 Hihimanu Street, in Waimanalo, Oahu, Hawaii. It is a single parcel identified as Tax Map Key (TMK) 4-1-09: 264 and contains approximately 26 acres (see Figure 1).

Waimanalo town is located on the eastern shore of Oahu, approximately fourteen miles from downtown Honolulu. The district park is about five miles from Kailua and nine miles from Kaneohe—neighboring communities that also use the park.

Figure 2 shows the park site and its geographic context. It is located *mauka* of Waimanalo Elementary and Intermediate School, the Hale Aupuni Subdivision, and a townhouse complex owned by the Housing and Community Development Corporation of Hawaii. Ahiki Street leads to the park from Kalanianaole Highway, but the roadway is barricaded to prevent vehicles from entering the park. Pedestrians, however, can skirt the locked gate and cross over a bridge into the park. The bridge spans an unnamed, intermittent stream that makes up the northern boundary of the park.

The main entryway is on the south side of the park. Motorists arrive at the park via Hihimanu Street, a two-lane rural road that loops off Kalanianaole Highway. Across Hihimanu Street to the south of the park are agricultural farm lots and nursery operations.

The Hawaii Job Corps Facility adjoins the park to the west. A narrow footbridge over a drainage swale provides a direct connection between the Job Corps Facility and the play courts. To the east of the park is a 31-acre property owned by the State of Hawaii and currently leased on a month-to-month basis for agricultural purposes.



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NORTH

FIGURE 1

TMK MAP (4-1-09: 264)
Waimanalo District Park

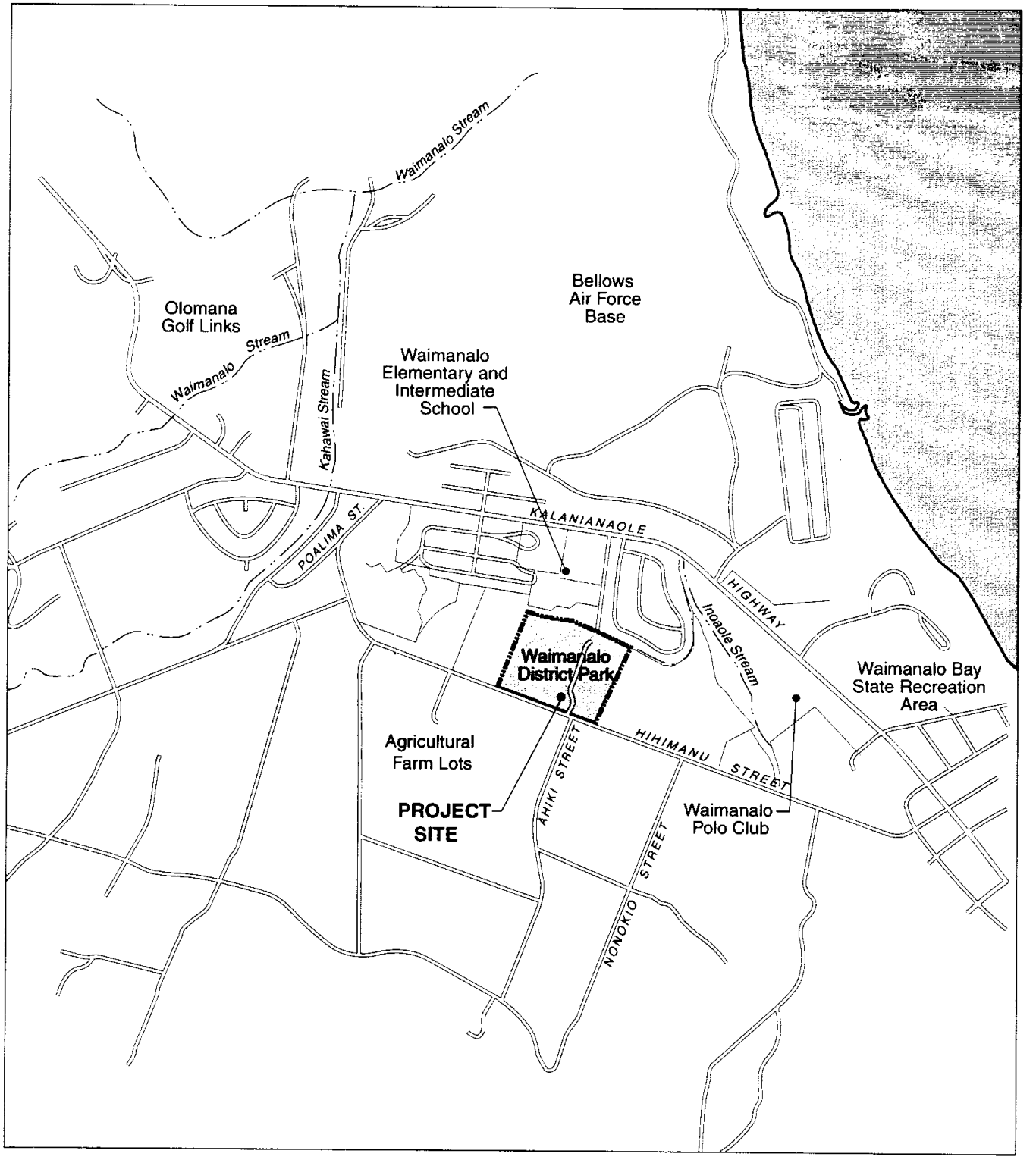

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FIGURE 2

LOCATION MAP
Waimanalo District Park

2.2 HISTORICAL BACKGROUND

The current master plan (completed in January 2001) updated the district park's original master plan prepared in 1979. The earlier plan guided park development through an initial series of capital improvement projects leading to its opening in 1983. The 1979 master plan soon became obsolete, superseded by buildings that were constructed on sites different from those shown on the plan itself (see Figure 3). While the 1979 master plan had envisioned the center of activity to be located on the *makai* side of the park, close to the schools and residential subdivision, the layout was eventually flipped around and the main structures were built on the *mauka* side of the park. In retrospect, the park—as it was eventually built—has the advantage of placing the major noise generators (such as the gym) farther away from residential areas and permanent structures are located away from the stream, thereby avoiding floodprone areas.

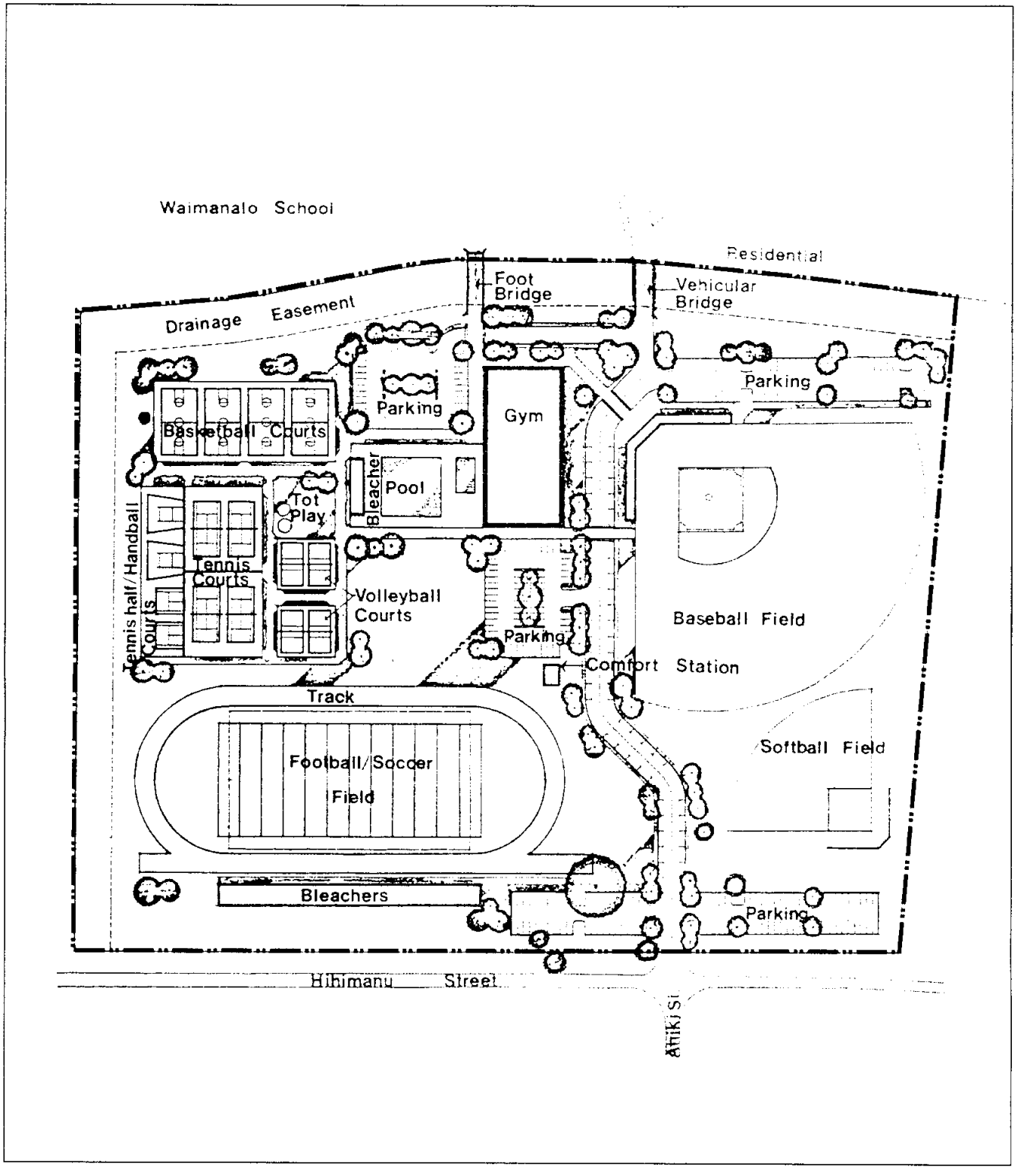
The vision process initiated a fresh round of planning within the parameters of the existing improvements. It provided an opportunity for the community to assess its recreational needs twenty years after the first master plan, and to propose a series of projects that would increase the park's functionality.

2.3 PROJECT PURPOSE AND NEED

Waimanalo District Park is a major component of social life in the community. The park is well-used throughout the year by Waimanalo residents and it attracts users from neighboring communities, such as Kailua and Kaneohe. It is not uncommon to find participants of athletic events from many parts of the island. To maximize usage, existing facilities must be repaired, renovated, and maintained. In addition, new park facilities need to accommodate future demand in an efficient manner and follow an appropriate development sequence.

The park is used for active recreation activities including organized youth and adult leagues for baseball, soccer, basketball, volleyball, and tennis. It is also used for passive recreation and a variety of leisure classes, community meetings, and cultural events. As a rural community, Waimanalo lacks many of the commercial recreational outlets found in urban areas. Moreover, because Waimanalo does not have its own high school, facilities traditionally associated with high school athletics, such as a football field, running track, or swimming pool, are not available locally.

The limited number of indoor and outdoor facilities at the district park today, compounded by high demand, have created management problems for park personnel. In particular, park administrators face scheduling conflicts due to overlapping schedules and competing uses.



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NORTH

100 0 100 200

SCALE IN FEET

FIGURE 3

1979 MASTER PLAN
Waimanalo District Park

Figure 4 shows the existing facilities at the district park. Many are in disrepair. The park has two play fields, both of which pose safety hazards because of drying and cracking soil. Sand has been spread over the fields as an interim measure, but a permanent solution is needed. The fields require extensive reconstruction to correct the underlying problem of clayey soils. Faulty irrigation and drainage systems have compounded the problem and should be corrected at the same time.

Portions of the park lack adequate drainage as seen in persistent wet spots.

The park's three existing buildings require repairs, renovations, and ongoing maintenance. Improvements needed for the buildings include roof and floor repairs to the gym, improved ventilation and insulation of the multi-purpose building, general maintenance and repair of comfort station facilities, and retrofitting throughout to meet the Americans with Disability Act (ADA) standards. Other facilities, such as the existing court complex, require general repairs and upgrades.

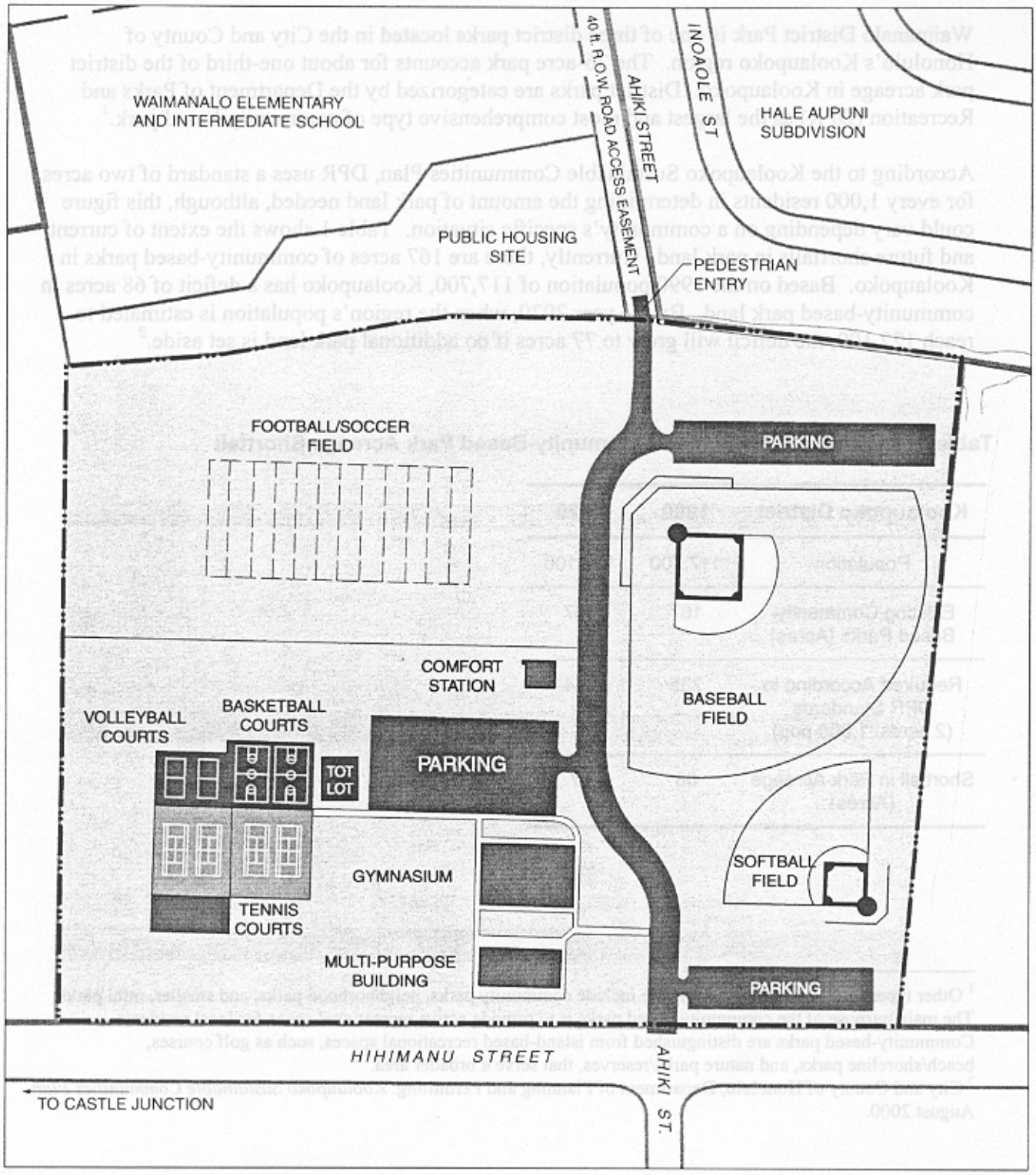

FIGURE 4

EXISTING FACILITIES
Waimanalo District Park

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Waimanalo District Park is one of three district parks located in the City and County of Honolulu's Koolaupoko region. The 26-acre park accounts for about one-third of the district park acreage in Koolaupoko. District parks are categorized by the Department of Parks and Recreation (DPR) as the largest and most comprehensive type of community-based park.[1]

According to the Koolaupoko Sustainable Communities Plan, DPR uses a standard of two acres for every 1,000 residents in determining the amount of park land needed, although, this figure could vary depending on a community's specific situation. Table 1 shows the extent of current and future shortfalls in park land. Currently, there are 167 acres of community-based parks in Koolaupoko. Based on the 1990 population of 117,700, Koolaupoko has a deficit of 68 acres in community-based park land. By the year 2020, when the region's population is estimated to reach 122,100, the deficit will grow to 77 acres if no additional park land is set aside.[2]

Table 1: Existing and Projected Community-Based Park Acreage Shortfall

Koolaupoko District	1990	2020
Population	117,700	122,100
Existing Community-Based Parks (Acres)	167	167
Required According to DPR Standards (2 acres: 1,000 pop)	235	244
Shortfall in Park Acreage (Acres)	68	77

[1] Other types in the classification scheme include community parks, neighborhood parks, and smaller, mini parks. The main purpose of the community-based parks is to provide active recreational space for local residents. Community-based parks are distinguished from island-based recreational spaces, such as golf courses, beach/shoreline parks, and nature parks/reserves, that serve a broader area.

[2] City and County of Honolulu, Department of Planning and Permitting. *Koolaupoko Sustainable Communities Plan.* August 2000.

2.4 TECHNICAL DESCRIPTION OF THE PROJECT

Master Plan Description

The master plan described in this chapter and shown in Figure 5 represents the culmination of a planning process involving extensive community participation and review. Members of the vision team discussed the strengths and limitations of three alternative layouts, and reached consensus on a fourth, "preferred" alternative which became the master plan.

Short-term proposals embody the highest priority improvements. Mid- and long-term proposals address other needs and concerns identified by vision team members and park managers. The proposed improvements will be implemented in phases based on design, construction, and budgetary constraints.

Play Field Repairs and Upgrades

Both the football/soccer field and the baseball/softball field (Azevedo Field) are in serious need of repair. Both fields are plagued by deep cracks that appear to be caused by a high concentration of clay in the soil.

The fields recently underwent minor improvements. A total of 43 sprinkler heads were replaced throughout the park. In addition, both playing fields were covered with a layer of sand. Although the sand has filled the cracks and improved field conditions, the surface remains uneven. The football/soccer field is underutilized, although informal baseball and soccer practices are allowed on a day-by-day basis after the fields are inspected for safety.

Park managers note that these recent repairs are a temporary response to meet the ongoing demand for play fields. Unless corrective measures are taken, the fields would most likely return to their unsafe state within a few months.

Proposed improvements involve the complete reconstruction of existing play fields. For this process, a 2-inch layer of organic soil will be amended at the surface and rototilled 6 inches, thereby blending the existing sand, soil, and the new organic amendments. The sprinkler system will be upgraded by replacing the existing remote-control valves, old irrigation heads, and automatic irrigation controller. The entire field will be re-graded and reseeded with common Bermuda grass.

As part of the field upgrades, one additional youth baseball field and one new softball field will be laid out in the northwest corner of the park where the football/soccer field exists currently. The existing football/soccer field will be rotated to provide standard-sized football and soccer fields without intruding on the infield areas of the new baseball and softball fields. The new baseball field will have a diamond measuring 60' x 60' and a 225' centerfield, which can accommodate youth baseball. The new softball field (shown on the plan) has a standard 60' x 60' diamond and a 310' centerfield, which meets standard field requirements for league play up to the men's and women's softball league level.

Repairs to the existing baseball and softball fields (Azevedo Field) will involve redoing the infield grass and skinned areas by adding a new material that is safer for sliding. New fencing for the backstops will be provided, along with new ADA-accessible dugouts, concrete pads behind the backstops for future bleacher sitting, drinking fountains for each field, and extended fencing along the first and third base lines. Encroaching vegetation from the adjacent property to the east of the park will be cut back to restore the fields to their original dimensions.

Gymnasium Repairs

Like the play fields, minor improvements have been made to the gym already, including replacement of the soffit screens. The master plan calls for additional repairs and renovations. These improvements will include resurfacing the gym floors, replacing the roof, interior and exterior painting, replacing screens, and window cleaning. Sinking ground around the walkway that surrounds the gym has created a safety hazard for pedestrians. The plan calls for the depressions will be backfilled and made level with the sidewalk.

Repairs to the Multi-Purpose Building

Recent improvements to the multi-purpose building include replacing doors to meet ADA standards and replacing screens and windows. The master plan includes several high priority improvements for the multi-purpose building, including repairing the sliding dividers, replacing the floor, repairing the ceiling, resurfacing the roof, and improving ventilation within the building. Other improvements include repairing jalousie windows and storage room shelves, and fumigating the building.

New Multi-Sport Building

A new multi-sport building will be built to accommodate the strong demand for indoor space, particularly for wrestling, boxing and martial arts, sumo, dancing, and gymnastics. The building will also provide space for cultural activities, classes, and meetings for children and senior citizens. The new building will be located between the gym and a new 50-meter swimming pool.

WAIMANALO ELEMENTARY AND INTERMEDIATE SCHOOL

PUBLIC HOUSING SITE

HALE AUPUNI SUBDIVISION

Inoa Street

Inoaole Street

Inoaole Stream

Possible Future Connection to Kalanianaole HWY

To Waimanalo Polo Club & Beach

VEHICULAR ACCESS NOT ALLOWED

PEDESTRIAN ENTRY ONLY

HALE

PEDESTRIAN WALKWAY

COMFORT STATION W/ OPEN PAVILION EXTENSION

HAWAII JOB CORPS FACILITY

IN-LINE SKATING

BASKETBALL & VOLLEYBALL COURTS

EXISTING BASKETBALL & VOLLEYBALL COURTS

EXISTING TENNIS COURTS

PEDESTRIAN ACCESS VIA JOB CORPS FACILITY

PRACTICE TENNIS BACKSTOP/ HANDBALL COURT

TOURNAMENT TENNIS COURT W/ BLEACHERS

SKATEBOARD PARK

FUTURE 50 METER POOL

MULTI SPORT BUILDING

EXISTING GYMNASIUM

EXISTING MULTI-PURPOSE BUILDING

OPEN PAVILION

EXISTING FOOTBALL/SOCCER FIELD

YOUTH BASEBALL FIELD

SOFTBALL FIELD

ADDL. PARKING 40 stalls

TOT LOT

EXISTING PARKING 100 stalls

25.99 ACRES

EXISTING PARKING 70 stalls

EXISTING BASEBALL FIELD

FOOTBALL/SOCCER FIELD

EXISTING YOUTH BASEBALL FIELD

EQUESTRIAN TRAIL

OVERFLOW PARKING

FUTURE PEDESTRIAN WALKWAY EXTENSION

PRACTICE SOCCER FIELD

PARKING

YOUTH BASEBALL TOURNAMENT FIELD AND HIGH SCHOOL FIELD

HALE

PRACTICE SOCCER FIELD

PRACTICE YOUTH LEAGUE BASEBALL FIELD

SCORER'S BOX/ COMFORT STATION

PRACTICE YOUTH LEAGUE BASEBALL FIELD

YOUTH BASEBALL TOURNAMENT FIELD

COMFORT STATION

PARKING

PERMANENT FOOTBALL FIELD & TRACK

PARKING

PARKING

True N

Best common orientation

325° 345° 360° 20°

Limits of good orientation where uniform direction of play direction of sports can be arranged

E

W

S

SUN ORIENTATION

To Castle Junction

PRIMARY ENTRY

EXISTING PARKING 50 stalls

Hihimanu Street

SECONDARY ENTRY

To Makapuu

AZEVEDO FIELD

Ahiki Street

Nonokio Street

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NORTH

100 0 100 200

SCALE IN FEET

LEGEND

Primary Planning Area (subject of this EA)

Long Term Expansion Area (not included in this EA)

PROPOSED

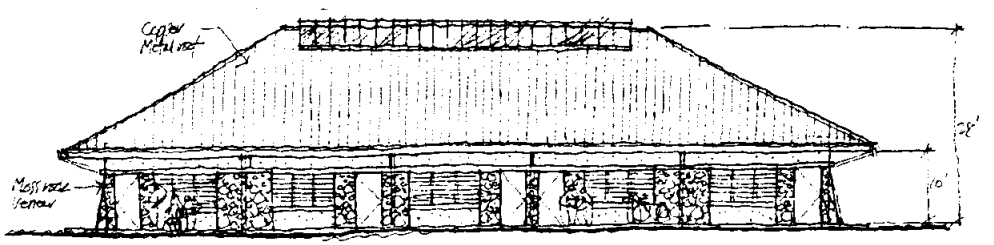
EXISTING

Proposed elements to the plan are shown with **bold** lines, **bold text**, and slightly darker than existing elements.

FIGURE 5

MASTER PLAN
Waimanalo District Park

The single-story structure will consist of approximately 5,000 square feet of enclosed area, providing a large open floor plan that can accommodate a wide range of activities. Smaller areas can be configured using manually operable partition walls, thus allowing flexible use of the space.



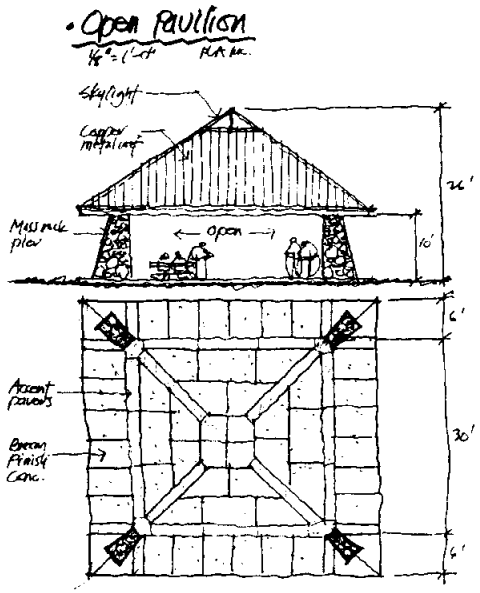
Concept sketch for the New Multi-Sport Building.

The multi-sport building will be designed in a style that is compatible with existing park structures. The use of architectural elements such as moss veneer walls, a high-pitched copper metal roof, and the introduction of natural light through ridge line skylights will help to evoke a Hawaiian architectural theme.

Open Pavilion (Hale)

A new open pavilion (*hale*) will be located near the entrance to the park between the gym and the entry road. The *hale* will contain approximately 1,764 square feet of covered area, but is called an "open" pavilion it lacks walls. The more informal setting is intended to accommodate a variety of uses, such as cultural events, hula practices, outdoor meetings, classes, and activities for senior citizens. The pavilion's central location is easily accessible and provides a clear vantage point within the park.

The *hale* will have the same architectural elements as the multi-sport building, such as moss rock veneer columns, a high-pitched copper metal roof, and skylights. Like the multi-sport building, the open pavilion will be designed to reflect the lifestyle of Waimanalo.



Concept sketch for the New Open Pavilion (Hale).

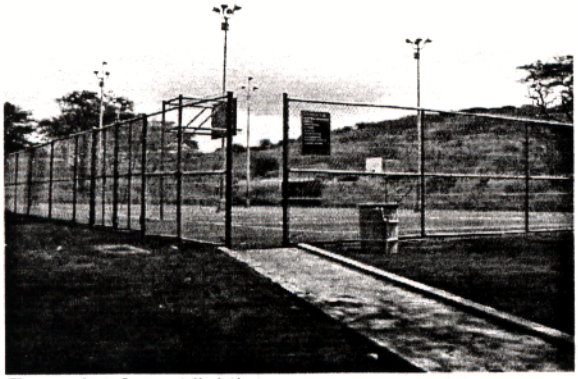
Comfort Station Expansion

Repairs and general maintenance are needed for the existing comfort station. Improvements to the comfort station will include general repair and renovation of toilet facilities to bring them into compliance with ADA standards. In the future, the building will be expanded to include a covered pavilion which can be used as a sheltered area for post-game snacks and potluck meals.

Court Expansion, Repaving, and Lighting

Improvements to the court complex at the district park will involve resurfacing and restriping of the existing courts, as needed. In addition, the existing court complex will be expanded to a total of 4 basketball courts, 4 volleyball courts, 4 tennis courts, and one tournament tennis court with bleachers. The basketball and volleyball courts will be overlaid with lines for 2 roller hockey courts, thereby creating a multi-purpose court that can serve different sports according to season. The tennis backboard will also serve double-duty as a handball court. Improvements will include the installation of lights for all new and existing courts.

Example of volleyball/basketball courts overlaid by rollerhockey court.



Example of court lighting.

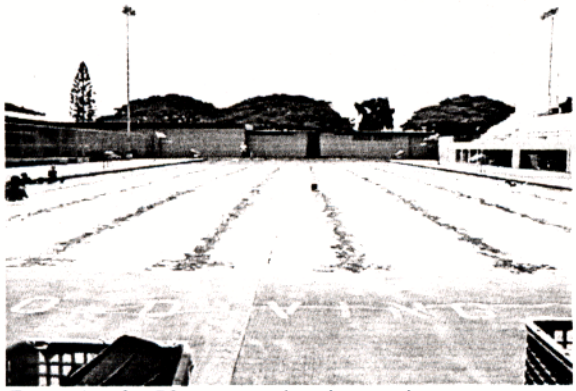
Skateboard Park Facility

There is a high demand for a facility that can accommodate both skateboarding and in-line skating. For enthusiasts of these popular sports, a new skateboard park is sited near the existing play court complex. The space allocated for this facility is sufficient to construct either a traditional facility with bowls, ramps, and wraps, and/or one that incorporates the newer design strategy of mimicking the sharp edges of city streets with rails, curbs, and platforms. This facility is phased for implementation in the mid-term time frame.

50-Meter Swimming Pool

The master plan reserves a site for a 50-meter pool to be located between the new multi-sport building and the expanded court complex. The 50-meter pool will provide the community with opportunities for recreation and exercise and to host competitive swim meets. Moveable bulkheads would be used to section off the pool and form smaller areas for various aquatic activities. The pool will be equipped with a lift in accordance with ADA accessibility requirements.

Because there are no public swimming pools in Waimanalo—the closest pools are in Kailua—this element was included in the district park's original master plan and remains in the current updated plan. At the same time, the relatively high cost of building and maintaining a pool is a realistic concern. Based on discussions with community members during the planning process, there is continued support for a swimming pool, but it is designated a long-term project. Design and construction will occur when the necessary funding resources become available.



Example of a 50-meter swimming pool.

Parking and Lighting

As shown in the master plan, the main parking lot will be expanded northward (on the *makai* side) to hold an additional 40 vehicles. This increase would bring the available parking spaces (both in lots and along the access road) to approximately 340. There are no plans for new parking lots within the existing boundaries of the park.

To provide added safety and security for night-time users, lights will be installed in the two smaller lots. The main parking lot is already lighted.

Perimeter Walkway and Lighting

Presently, walkways at the Waimanalo District Park do not extend beyond the area immediately surrounding the gym, multi-purpose building, and main parking lot. Improvements proposed for the short term include the construction of a walking/jogging path that would run along the perimeter of the park. The proposed path will form a continuous loop around the park. The path will measure more than 4,000 linear feet and will be lined with trees and pole lights. This feature will allow the park to be used for passive recreation thereby broadening the park's appeal to different types of park users.

The existing pedestrian entry at the north end of the access road is heavily used by children entering the park from Waimanalo Elementary and Intermediate Schools and the residential

areas. The lack of lighting in this area poses a safety concern. Pedestrian-scale street lamps will be installed at this entry point as another near-term project.

Example of a lighted pedestrian walking/jogging path.

Streamside Open Pavilion (Hale)

A long-term proposal calls for new open pavilion (*hale*) to be constructed at the north end of the site, near the stream. The *hale* will function as a sheltered meeting area and will provide a place to socialize away from other park buildings.

Landscaping

The landscape concepts were designed to reflect the Waimanalo community and lifestyle and invoke a sense of pride for residents who visit and use the park. A key objective of the plan is to provide additional canopy shade trees along the park road and parking lots as well as the perimeter areas of the active playing fields, building structures, and hard playing surfaces. There are few mature trees within the park grounds at present. Efforts to introduce more vertical elements in the park began in 1999 with the planting of 25 juvenile shower trees.

More than 100 new trees are included in the landscaping plan. The tree species selected—true kou, rainbow shower, tulipwood, and monkeypod—will provide both shade and color to the park. In addition to the new tree plantings, three existing monkeypod trees will be relocated to other areas within the park to open up space for a youth baseball field located at the northwest corner of the park.

Accent palm clusters will be planted around the gym and the proposed multi-sports building. Native Hawaiian trees, shrubs, and groundcovers will be planted wherever possible. Drought tolerant and low maintenance plant materials will be given priority when making final plant selections.

The irrigation system will be upgraded or replaced as each phase is implemented. It is recommended that the system be on a water line dedicated for irrigation purposes only.

A longer term proposal is to design and install a landscaped entry feature. A more prominent sign would better mark the entrance to the park, and the feature could incorporate design motifs that reflect the community's aesthetics.

Accessibility

All facilities will be designed to meet the requirements of the Americans with Disabilities Act and the requirements of §103-50 Hawaii Revised Statutes. Buildings, facilities, and sites shall also incorporate the best design practices as noted in the Americans with Disabilities Act Accessibility Guidelines; Recreation Facilities; Proposed Rulemaking, Federal Register, July 9, 1999, and the recommendations from U.S. Access Board's Regulatory Negotiation Committee on Access to Outdoor Developed Areas or other current documents providing for outdoor recreation areas.

2.5 FUTURE LAND ACQUISITION AND PARK EXPANSION

The adjoining property to the east of the park is identified as a possible area for future land acquisition and park expansion. The 31-acre, State-owned property is currently leased on a month-to-month basis and used for grazing. It is classified as Agriculture in the State land use system.

The master plan (Figure 5) shows proposed facilities in the expansion area with a gray screen to indicate that this element is envisioned for the very long-term future. The improvements shown in this area are highly conceptual and present one scenario of what might be possible. Given the speculative nature of proposals in the expansion area, they are not covered within the scope of this environmental assessment.

The long-range expansion proposal involves creating a large, contiguous stretch of park land along the stream channel. This corridor would essentially create a green belt that extends from Waimanalo District Park to the Waimanalo Polo Field and ending with Waimanalo Beach Park.

To access the expanded park area, a secondary entry would be constructed at the intersection of Hihimanu Street and Nonokio Street. The secondary entryway would facilitate circulation within the park during large functions and events, such as baseball and softball tournaments, and would also enable more efficient response by emergency vehicles. When play fields in the expansion area are not in use, the secondary access road could be closed off.

If park expansion takes place, the existing access road would be extended to form a continuous loop road that connects the two entries and provides internal vehicular circulation. Parking lots located throughout the expansion area would provide convenient access to play fields and other park facilities. In addition, an overflow parking area is located along the internal access road at the northeast end of the expansion area.

Within the expansion area, proposed facilities include a new baseball complex, made up of one youth league baseball/high school baseball tournament field, one youth league baseball tournament field, and two practice youth league baseball fields. The four-plex includes a scorer's box and comfort station, as well as field bleachers.

Both tournament baseball fields in the complex meet general north-south field orientation requirements. The youth baseball/high school baseball tournament field has a 90' x 90' diamond and a 350' playing field, which meets tournament field standards for these levels of play. The youth baseball tournament field contains a 60' x 60' diamond and a 250' playing field.

The practice fields contain 60' diamonds and 200' playing fields. Because of their east-west orientation, these fields could be used for tournament play only when sun orientation is not a factor, or they could be used for practices and tournament consolation games.

A regulation-size football field equipped with permanently installed goal posts and bleachers is located at the far eastern end of the expansion area. A running track surrounding the football field is also proposed.

If additional soccer fields are required, the outfield areas of the youth/high school tournament baseball field and the practice baseball fields could be used.

The master plan includes another comfort station to be located between the permanent track/football field and the overflow parking area. It also shows an open pavilion (*hale*), which would be located between the baseball complex and parking lot. Like the *hales* proposed for the existing park area, this one would provide a place for people to gather before and after practices and games.

A bridle path is planned along the western and northern boundaries of the expansion area, providing an equestrian connection between Hihimanu Street and the Waimanalo Polo Field. The walking/ jogging path, identified as a short-term improvement in the existing park, would be extended into any new territory. A series of picnic tables and shade trees are planned as a buffer between the existing baseball/softball field (Azevedo Field) and the new ball fields in the expansion area. Additional trees would be planted near the parking lots and around the park's expanded boundaries.

2.6 PROJECT COST AND SCHEDULE

Special emphasis is given to projects that can be funded under the Vision program's two-year funding cycle. Table 2 lists the short-term master plan projects and estimated design and construction costs.

Master plan improvements have been categorized in one of three phases as shown in Table 3. High-priority improvement projects are scheduled for implementation in the short term, which could be as soon as FY 2000. With potential time lags in funding, design, and/or construction, the "short-term" includes projects to be implemented in 1-3 years.

Mid-term projects are planned for the 3-5 year time frame. These projects generally require new construction and would fulfill community demand for facilities that support popular recreation activities. Mid-term projects currently have no funding source and would require an active and creative search for financing.

Long-term projects fall in a 5-10 year time frame. These projects represent the community's aspirations for a recreational centerpiece. Such a park would not only provide a place where Waimanalo residents will have access to a full range of recreational opportunities, but would also showcase the community's hospitality with facilities suitable for tournaments and competitions.

Table 2: Cost Estimates of Proposed Improvements and Phasing Schedule for Vision CIP Funds

Fiscal Year and Budget Items	Estimated Construction Costs ($)	Architect & Engineering (A&E) Fees ($)
FY 2000: $2,187,970		
Master Plan/Environmental Assessment		178,800
Play field repairs and upgrades	1,128,670	120,000
Parking lot lighting	100,000	15,000
Gym repairs	220,000	30,000
Multi-purpose buildings repairs	220,000	30,000
Multi-sports building (design only)		127,500
Open pavilion (design only)		18,000
FY 2001: $2,734,250		
Multi-sports building (construction)	1,265,000	
Open pavilion (construction)	151,250	
Comfort station (renovation, expansion)	330,000	45,000
Courts repaving and lighting	520,000	78,000
Perimeter walkway and lighting	300,000	45,000

Table 3: Master Plan Improvement Phasing

Features	Short-term 1-3 years	Mid-term 3-5 years	Long-term 5-10 years
Facilities			
Gymnasium	Repair, refurbish, and/or replace floors, roof, window screens, exterior walkways Paint		
Multi-purpose bldg	Repair, refurbish, and/or replace sliding dividers, floor, ceiling, roof, windows, storage Improve ventilation		
Comfort station	General repair Renovate toilets	Add covered pavilion	
Multi-sport building	Design and construction		
Open pavilion (*hale*)	Design and construction		
Skateboard park		Design and construction	
Streamside *hale*			Design and construction
50-meter pool w/ bleachers			Design and construction
Courts			
Existing courts	Resurfacing, as needed Install lights Overlay striping for roller hockey		
New bank of courts (2 tennis, 2 basketball)			Design and construction
Tournament tennis court (w/ bleachers)			Design and construction
Play Fields			
Football/soccer (existing)	Reconstruct field Lay out new baseball/ softball fields	Install bleachers	
Baseball/softball (Azevedo Field)	Reconstruct field Install fences Cut perimeter vegetation	Install bleachers	
Parking			
Existing parking lots	Restripe Mark handicap stalls Lighting (2 lots)		
Main lot expansion		Enlarge; add 40 stalls	
Walkways			
Walk/jog path	Construct perimeter path Lighting		
Landscaping			
	Plant new trees Acquire trash receptacles	Landscaped entry feature/signage	

TRUE NORTH
SCALE: 1" = 60'-0"

FLOOD ZONE – AO (DEPTH 1)

2 - 48" Corrugated Metal Pipe Culverts

Drain Outlet (n.i.)

APPROXIMATE FLOOD ZONE LINE

FLOOD ZONE – AE (FLOODWAY)

APPROXIMATE FLOOD ZONE LINE

EXISTING PARKING AREA

EXISTING COMFORT STATION

EXISTING A/C. ROAD

EXISTING BASEBALL FIELD

FLOOD ZONE – AE (FLOODWAY)

APPROXIMATE FLOOD ZONE LINE

FLOOD ZONE – AE

EXISTING PLAY APPARATUS

EXISTING PARKING AREA

EXISTING PLAYCOURTS

EXISTING SOFTBALL FIELD

EXISTING GYMANASIUM

EXISTING MULTI-PURPOSE BUILDING

EXISTING PARKING AREA

Drain Outlet (n.i.)

HIHIMANU STREET (CITY)

LEGEND:

Exist. Sewerline	–S24–
Exist. Waterline	–W4–
Exist. Drainline	–D12–
Exist. Irrigation Line	
Exist. Elec. Line	–E–
Approx. Floodway/ Flood Zone Line	
Approx. Base Flood Elev. (Elev. in Feet)	–30–
CB	Catch Basin
GI	Grated Inlet
SDMH	Storm Drain Manhole

REDUCED PLAN
(HALF SIZE)
0 1 2 3
3 INCHES OF ORIGINAL PLAN

NOTE:
FLOOD ZONE LINES AND FLOOD ELEVATIONS ARE APPROXIMATE ONLY. INFORMATION SCALED FROM FLOOD INSURANCE RATE MAP (FIRM), COMMUNITY-PANEL NUMBER 150001 0095 B.

FIGURE 8

EXISTING DRAINAGE AND GRADING PLAN | SCALE 1" = 60' | 1

APPROVED	MADE BY	DESCRIPTION	DATE	REVISION

DESIGNED BY: DA
DRAWN BY: DM
DATE: DEC. 2000
APPROVED:

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY & COUNTY OF HONOLULU

WAIMANALO DISTRICT PARK
MASTER PLAN
AT
WAIMANALO, KOOLAUPOKO, OAHU, HAWAII

EXISTING DRAINAGE AND GRADING PLAN

JOB NO.
DRAWING NO.
SHEET NO. OF
FILE NO.

3 AFFECTED ENVIRONMENT

3.1 PHYSICAL ENVIRONMENT

3.1.1 Topography and Slopes

The site is relatively flat with an overall slope of approximately 1.0%. Previous grading and leveling of the site has left the park approximately five feet lower than Hihimanu Street which delineates the southern boundary of the site. Surrounding the park on the southern, eastern, and western boundaries are drainage swales that direct runoff into the intermittent stream along the northern boundary of the site.

The elevation of Hihimanu Street is approximately 35 feet mean sea level (MSL). The existing gym and multi-purpose building sites are located at approximately 30.5 feet MSL. The play courts are at about 27 feet MSL. The roadway slopes at about 1.5% to the north and connects the southern parking lot (29.5 feet MSL), main parking lot (27.5 feet MSL), and northern parking lot (26.5 feet MSL). The comfort station sits at an elevation of 23.5 feet MSL.

The ground generally slopes away from existing building and play court improvements. There is a 7-foot bank between the southern parking lot and the east field. The east field then slopes at approximately 1.0% from elevation 23 feet MSL to the stream channel at the northern end of the site. There is a 3-foot bank between the play courts and the west field. This field also slopes at about 1.0% toward the streambed. The elevation along the top bank of the stream is about 16 feet MSL.

The public housing area and the Hale Aupuni subdivision both sit approximately 15 feet higher than the top of the stream bank.

3.1.2 Soils

The soil types found at the site are Waialua Clay, Haleiwa Silty Clay, and Mamala Stony Silty Clay Loam (see Figure 6).[3]

Waialua clay 2-6% slope (WnB) is the predominant soil type in the area. On this soil, runoff is slow and the erosion hazard is slight. The soil has moderate permeability and is stony in places. Waialua clay can be characterized as having moderate shrink-swell potential with low shear strength.

[3] U.S. Department of Agriculture, Soil Conservation Service, 1972. Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii.

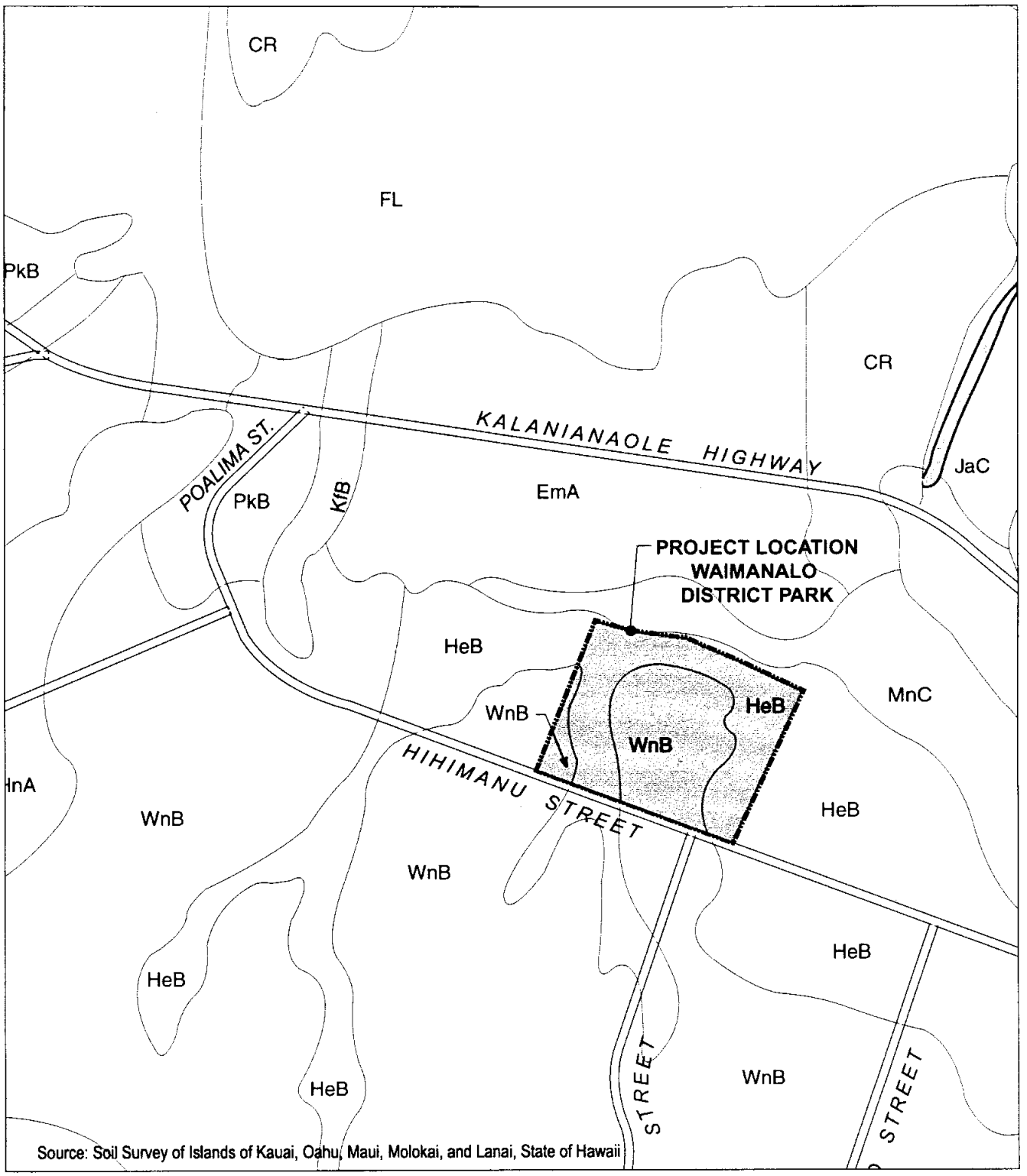


FIGURE 6

SOILS MAP
Waimanalo District Park

KIMURA INTERNATIONAL

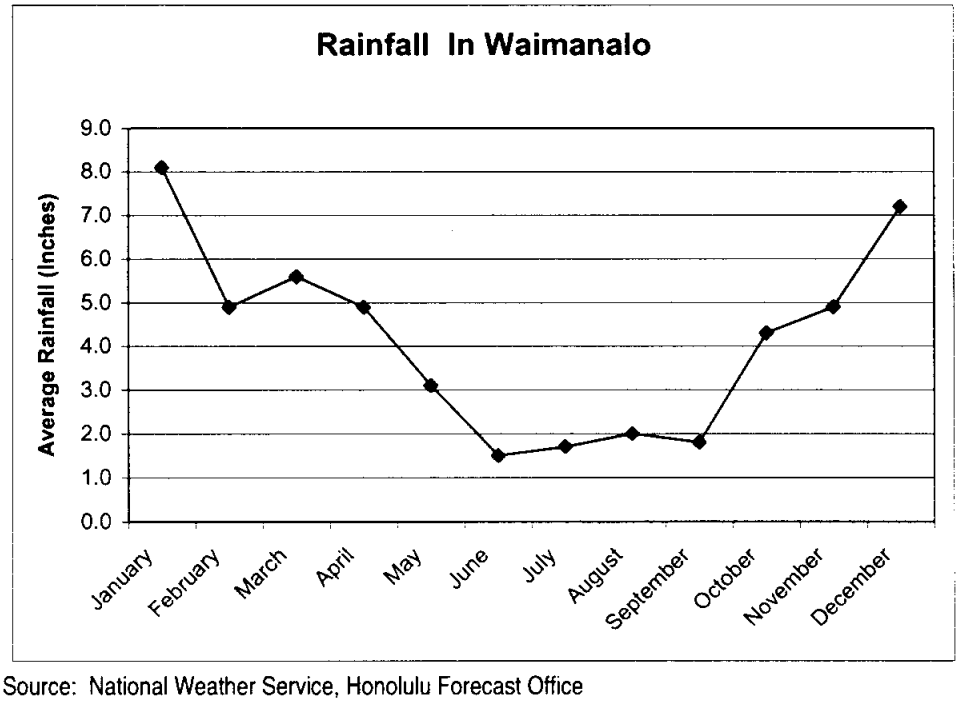
Haleiwa silty clay 2-6% slope (HeB), like other soils in this series, consist of well-drained soils on fans and in drainageways along the coastal plains. They developed in alluvium derived from basic igneous material. Haleiwa silty clay has slow runoff and the erosion hazard is slight.

Mamala stony silty clay loam 0-12% slope (MnC) is composed of stones, and coral rock fragments are common in the surface layer. The surface layer is dark, reddish-brown stony silty clay loam about 8 inches thick. The subsoil is dark, reddish-brown silty clay loam about 11 inches thick. Permeability is moderate and runoff is low to medium. The erosion hazard is slight to moderate. Coral is typically encountered at depths of less than 20 inches.

3.1.3 Climate and Air Quality

The project area enjoys the typical subtropical climate of Oahu. Temperatures in the area are generally mild and uniform, with monthly average temperatures ranging from 70 degrees Fahrenheit in January to 78 degrees Fahrenheit in August. Average annual rainfall in the Waimanalo watershed varies with elevation and ranges from approximately 40 inches at sea level to approximately 100 inches in the Koolau Mountain Range. The project area is near sea level and has an average rainfall of approximately 50 inches per year. There is a seasonal variation in rainfall. The wet season generally extends from November 1 through April 30 and averages 6 inches per month. During the dry season, from May 1 through October 31, rainfall averages 2 inches per month (see Figure 7).

Figure 7



Source: National Weather Service, Honolulu Forecast Office

Prevailing winds are northeasterly trade winds, which occur approximately 70 percent of the time. Trade wind frequency ranges from about 45 percent in January to more than 90 percent in July. High winds can occur during the winter months.

According to the State Department of Health, Waimanalo is not situated within an air quality maintenance or non-attainment area. Vehicular traffic is the major source of air pollutants; however, the impact of this source is not considered to be significant given the rural character of the area. Prevailing northeast trade winds also help to keep pollution levels low.

3.1.4 Natural Hazards

Flood Zone

The Flood Insurance Rate Map (FIRM) for the island of Oahu, prepared by the Federal Emergency Management Agency (FEMA) identifies flood hazard and flood prone areas.[4] A majority of the park is located within flood Zone AE, a 100-year flood zone (see Figure 8). Another way of looking at the flood risk is to say that there is a 1-percent probability of flooding in any given year. Base elevations are shown in Figure 8 and range from 18 to 26 feet MSL. The northern and eastern sections of the park are located within floodways.

Seismic Activity

The Uniform Building Code (UBC) provides minimum design criteria to address the potential for damages due to seismic disturbances. The UBC scale is rated from Seismic Zone 1 through Zone 4, with 1 the lowest level for earthquake-induced ground movement. Oahu has a designation of Seismic Zone 1.

3.1.5 Hydrology

Storm runoff, except runoff generated within the roadway and parking lot areas, sheet flows into the existing drainage swales surrounding the site. The drainage swale along Hihimanu Street has a high point at the park access road and slopes toward the swales at the western and eastern boundaries. These drainage swales then convey runoff north into the intermittent stream. The stream channel flows from west to east and converges with Inoaole Stream at a point east of the Hale Aupuni subdivision. The drainage swale along the southern boundary of the site also collects runoff from a section of Hihimanu Street fronting the park.

Runoff from the southern parking lot flows into an inlet at the east end of the lot. The inlet is connected to a pipe which discharges into the drainage swale along the eastern boundary. The remaining parking lots and the access roadway are serviced by catch basins and inlets that are connected by a series of 18- and 24-inch pipes. The system conveys runoff north and discharges into the stream, to the east of 48-inch drainage culverts.

[4] Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency, Map Number 15003C0380E, Effective date November 20, 2000.

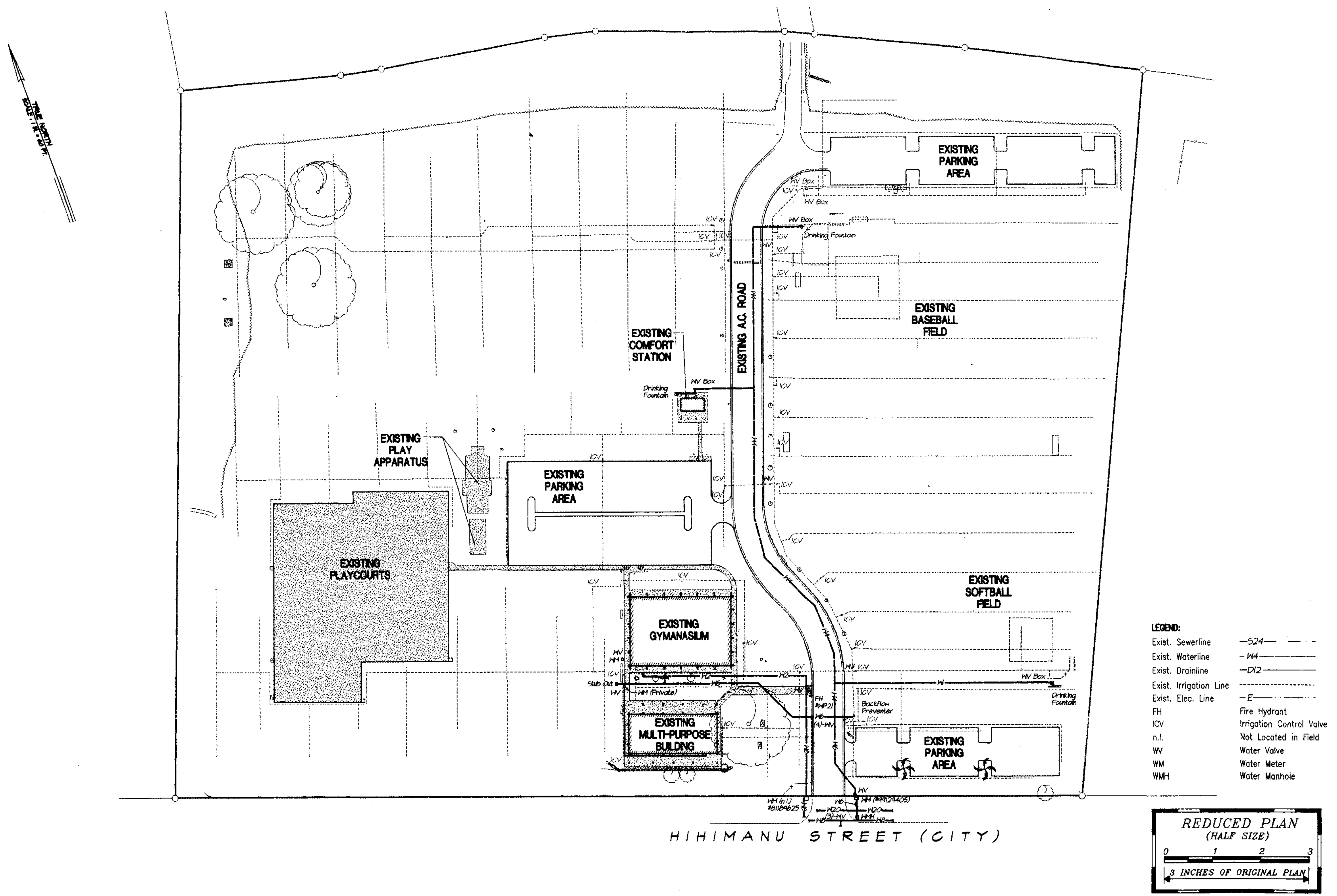

TRUE NORTH
SCALE: 1 IN. = 60 FT.
EXISTING PARKING AREA
WV Box
ICV
Drinking Fountain
EXISTING BASEBALL FIELD
EXISTING A.C. ROAD
EXISTING COMFORT STATION
EXISTING PLAY APPARATUS
EXISTING PARKING AREA
EXISTING PLAYCOURTS
EXISTING GYMANASIUM
EXISTING SOFTBALL FIELD
EXISTING MULTI-PURPOSE BUILDING
Stub Out
WM (Private)
WV
WM
FH #WP21
W6
(4)-WV
Backflow Preventer
W1
W2
W4
WM (n.l.) #81189625
WM (#99129405)
W20
(3)-WV
WMH
W8
HIHIMANU STREET (CITY)
LEGEND:
Exist. Sewerline —S24—
Exist. Waterline —W4—
Exist. Drainline —D12—
Exist. Irrigation Line
Exist. Elec. Line —E—
FH Fire Hydrant
ICV Irrigation Control Valve
n.l. Not Located in Field
WV Water Valve
WM Water Meter
WMH Water Manhole
REDUCED PLAN
(HALF SIZE)
0 1 2 3
3 INCHES OF ORIGINAL PLAN

FIGURE 9

EXISTING WATER DISTRIBUTION PLAN

SCALE: 1" = 60'

1

REVISION | DATE | DESCRIPTION | MADE BY | APPROVED

DESIGNED BY:
CHECKED BY: DA
DRAWN BY: DM
DATE: DEC. 2000
APPROVED:

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY & COUNTY OF HONOLULU

WAIMANALO DISTRICT PARK
MASTER PLAN
AT
WAIMANALO, KOOLAUPOKO, OAHU, HAWAII

EXISTING WATER DISTRIBUTION PLAN

JOB NO.

DRAWING NO.

SHEET NO. OF

FILE NO.

TRUE NORTH
EXIST. IN = 0 FT.

EXISTING PARKING AREA

Drywell

EXISTING BASEBALL FIELD

EXISTING COMFORT STATION

Dry-well

SMH (Cesspool)

SMH

CO

EXISTING A.C. ROAD

EXISTING PLAY APPARATUS

EXISTING PARKING AREA

EXISTING PLAYCOURTS

EXISTING SOFTBALL FIELD

SMH (Cesspool)

EXISTING GYMANASIUM

2-CO

Grease Interceptor

EXISTING MULTI-PURPOSE BUILDING

EXISTING PARKING AREA

HIHIMANU STREET (CITY)

LEGEND:

Exist. Sewerline	—S24— — —
Exist. Waterline	—W4— — —
Exist. Drainline	—D12— — —
Exist. Irrigation Line	----------
Exist. Elec. Line	—E— ·—·—·
CO	Clean Out
SMH	Sewer Manhole

REDUCED PLAN
(HALF SIZE)
0 1 2 3
3 INCHES OF ORIGINAL PLAN

FIGURE 10

EXISTING SEWER SYSTEM PLAN | SCALE 1" = 60' | 1

NO.	DESCRIPTION	MADE BY	APPROVED

DESIGNED BY: DA
DRAWN BY: DM
DATE: DEC., 2000

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY & COUNTY OF HONOLULU

WAIMANALO DISTRICT PARK
MASTER PLAN
AT
WAIMANALO, KOOLAUPOKO, OAHU, HAWAII

EXISTING SEWER SYSTEM PLAN

JOB NO.

DRAWING NO.

SHEET NO. OF

FILE NO.

3.1.6 Noise Quality[5]

The noise environment in and around the project site reflects the rural character of the area. Ambient noise readings were not taken at the district park itself; however, measurements were taken in July 2000 at the intersection of Hihimanu Street and Poalima Street, a location approximately one-half mile to the west and similar to the project site. Investigators found a nighttime hourly L_{eq} of 46.0 dBA and a daytime hourly L_{eq} of 51.0 dBA. Traffic was the dominant contributor to the noise measurements.

In comparison, the State Department of Health's Community Noise Control regulations establish the maximum permissible sound levels for the Class C zoning district (including lands zoned agriculture and country) at 70 dBA for both daytime and nighttime.

3.2 BIOLOGICAL ENVIRONMENT

3.2.1 Flora[6]

An inspection of botanical resources found along the perimeter of Waimanalo District Park was conducted on October 26, 2000 to confirm that no important plant resources, such as threatened and endangered species, are present. The on-site assessment found an overgrown strip of vegetation between the mowed, grassy lawn area of the park and the koa haole scrub (*Leucaena leucocephala*) which borders three sides of the park. The width of this overgrown area is variable.

The vegetation consists primarily of California grass (*Brachiaria mutica*), 2-3 feet tall. Where the vegetation adjoins the koa haole scrub, the grass cover changes to Guinea grass (*Panicum maximum*), 3-4 feet tall, with taller clumps of elephant grass (*Pennisetum purpureum*), 7-8 feet high. Other weedy species associated with these overgrown areas include scattered young koa haole plants, sourgrass (*Digitaria insularis*), Hilo grass (*Paspalum conjugatum*), virgate mimosa (*Desmanthus virgatus*), pualele (*Emilia fosbergii*), spiny amaranth (*Amaranthus spinosus*), pink bindweed (*Ipomoea triloba*), white-flowered Spanish needle (*Bidens alba*), false mallow (*Malvastrum coromandelianum*), honohono (*Commelina diffusa*), etc. Locally abundant in fairly large numbers in some places are plants of Chinese violet (*Asystasia gangetica*), *Boerhavia coccinea*, wild bean (*Macroptilium atropurpureum*), graceful spurge (*Chamaesyce hypericifolia*), and sensitive plant or puahilahila (*mimosa pudica*).

The koa haole scrub varies in height from 10-25 feet tall. Scattered through the koa haole are somewhat taller trees of Java plum (*Syzygium cuminii*), African tulip tree (*Spathodea campanulata*), and fiddlewood (*Citharexylum caudatum*). A few Christmas berry shrubs

[5] Environmental noise assessment study for a proposed Board of Water Supply 36-inch water main, prepared by D.L.Adams Associates, Ltd. Report dated Sept. 28, 2000.
[6] Botanical resources assessment, analysis of potential impacts, and recommended mitigation measures prepared by Char & Associates. Letter report dated October 30, 2000.

(*Schinus terebinthifolius*) are also found in the area. Coccinia or scarlet-fruited gourd vines (*Coccinia grandis*) are occasional.

3.2.2 Fauna[7]

A wildlife survey was conducted in portions of Waimanalo on May 13, 2000. The study area included the segment of Hihimanu Street that borders the district park to the south[8]. One of seven count stations established for the survey was located adjacent to the park. The count began at 5:47 a.m. and ended at 7:09 a.m. All birds seen and heard within eight minutes were recorded for each station. Incidental observations were made between stations.

The survey found the usual complement of introduced birds common to the lowlands of Oahu. The most abundant species recorded was the chestnut mannikin, including individuals that were part of a large flock feeding on grass seeds on district park grounds. The second most abundant species was another seedeater, the Java sparrow. It was seen at five stations but the largest number were spotted at the district park in association with the chestnut mannikins, nutmeg manikins, and common waxbills. The red-vented bulbul, spotted dove, common myna, and cattle egret were observed from all seven stations (including the one just outside the district park). One peafowl was heard as were many domestic chickens. The following is a list of introduced birds encountered during the field survey[9]. They are listed in order of numbers observed.

Chestnut mannikin (*Lonchura malacca*)
Java sparrow (*Padda oryzivora*)
Red vented bulbul (*Pnycnonotus cafer*)
Spotted dove (*Streptopelia chinensis*)
Common myna (*Acridotheres tristis*)
Cattle egret (*Bubulcus ibis*)
Zebra dove (*Geopelia striata*)
House finch (*Carpodacus mexicanus*)
English sparrow (*Passer domesticus*)
Common waxbills (*Estrilda astrild*)
Japanese white eye (*Zosterops japonicus*)
Red crested cardinal (*Paroaria coronata*)
Northern cardinal (*Cardinalis cardinalis*)
Nutmeg mannikin (*Lonchura punctulata*)
Peafowl (*Pavo critata*)

[7] Wildlife survey for a proposed Board of Water Supply 36-inch water main, prepared by Tim J. Ohashi, Certified Wildlife Biologist. Report dated July 17, 2000.
[8] According to Tim Ohashi, May is a prime observation period because it comes in the midst of the March through August nesting season for native waterbirds.
[9] Some species were observed outside Waimanalo District Park and its immediate environs; however, it would not be unusual for these species to be found on park grounds.

One mongoose (*Herpestes auropunctatus*) was observed along Hihimanu Street. No other mammals were seen, although there are probably feral cats (*Felis cattus*), rats (*Rattus* spp), and mice (*Mus musculus*) in the area.

3.3 SOCIO-ECONOMIC ENVIRONMENT

3.3.1 Population and Employment

The primary users of the district park are residents of Waimanalo. The 2000 U.S. Census counted 7,935 residents in Waimanalo.[10] Although Waimanalo is a relatively small community, it is one of the few growth centers in the Koolaupoko region. As seen in Table 4, Waimanalo experienced 3 percent growth between 1990 and 2000. In contrast, the overall population of Koolaupoko declined over the same period.

Table 4: Population in Waimanalo, the Koolaupoko District, and Oahu, 1990-2000

Area	1990	2000	Net Change 1990-2000	Percent Change 1990-2000
Waimanalo*	7,693	7,935	242	3.1%
Kailua CDP	36,818	36,513	-305	-0.8%
Kaneohe CDP	35,448	34,970	-478	-1.3%
Koolaupoko District	117,242	117,138	-104	-0.1%
Oahu	836,231	876,156	39,925	4.8%

* Including the Waimanalo CDP and Waimanlo Beach CDP
** Koolaupoko District calculated based on the following: Ahuimanu CDP, Heeia CDp, Kahaluu CDP, Kailua CDP, Kalaheo CDP, Kaneohe CDP, Kaneohe Station CDP, Maunawili CDP, Waikane CDP.
Note: CDP stands for Census Designated Place.
Source: U.S. Census Bureau

[10] Including the Waimanalo Census Designated Place (CDP) and the Waimanalo Beach CDP.

Another distinctive feature of Waimanalo is the relatively high percentage of persons under 18 years of age. In Waimanalo, 29 percent of the population is under 18, compared to 25 percent in the Koolaupoko District and 24 percent for the island of Oahu. Both the population growth statistics and the age composition statistics support continued demand for recreational facilities and services.

Table 5: Population by Age Group in Waimanalo, the Koolaupoko District, and Oahu, 2000

Area	Persons 18 Years and Under	% of Population ≤ 18 Years	Persons > 18 Years	% of Population > 18 Years
Waimanalo*	2,294	29%	5,641	71%
Kailua CDP	8,814	24%	27,699	76%
Kaneohe CDP	8,593	25%	26,377	75%
Koolaupoko District	29,000	25%	88,138	75%
Oahu	208,758	24%	667,398	76%

* The percentage of persons under 18 years old is 31% in the Waimanalo CDP and 27% in the Waimanalo Beach CDP.
Note: CDP stands for Census Designated Place.
Source: U.S. Census Bureau

Employment

Currently Waimanalo District Park employs two full-time recreation directors. There is an opening for 1 half-time position in recreation programs that would be shared with another park. There are approximately 20 part-time staff persons who monitor and supervise activities, especially on the weekends and in the evenings. In addition, there are two full-time maintenance persons.[11]

3.3.2 Surrounding Land Uses

Bordering the district park are school facilities, residential neighborhoods, and agricultural farm lots. An intermittent stream runs along the northern (*makai*) edge of the park. Just beyond the stream are the Hale Aupuni Subdivision and a townhouse complex owned by the Housing and Community Development Corporation of Hawaii (HCDCH). The Waimanalo Elementary School, Intermediate School, and Library complex is also located north of the park.

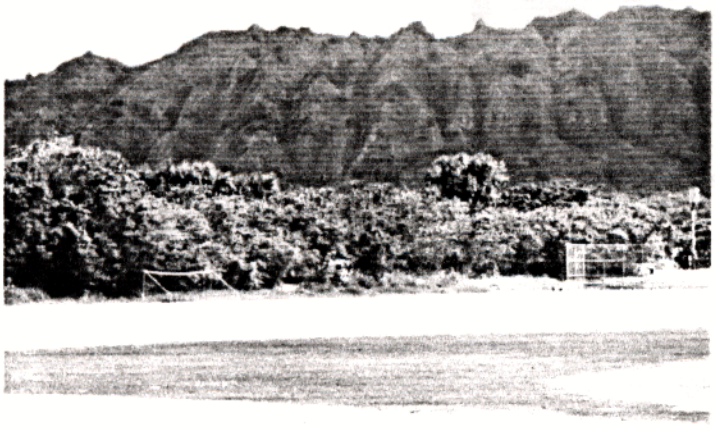
[11] Phone conversation with Sheila Wensel on January 26, 2001.

Another institutional use, the Hawaii Job Corps Center, lies to the west of the park. The property on the east is owned by the State of Hawaii and leased to farmers as part of the State's agricultural subdivision program. Farms and nurseries on relatively large parcels of private land are found *mauka* of the park (across Hihimanu Street to the south).

South-facing view: agricultural operations located across Hihimanu Street.

West-facing view: Hawaii Job Corps Center connected to the park via a footbridge.

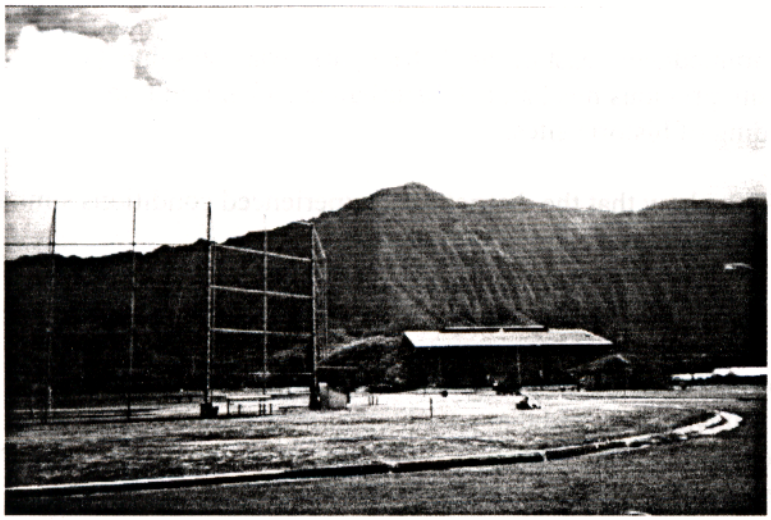
North-facing view: residential area beyond the stream channel along the northern boundary of the park.



East-facing view: State-owned land, some of which is leased to agricultural tenants.

3.3.3 Visual and Scenic Resources

The project is not located in any recognized view corridor, such as a scenic highway, byway, or river. However, there are magnificent views of the Koolau Mountain Range from the park site as seen in the photo below.



Mauka-facing view from within the park: Koolau Mountains provide a dramatic back drop.

3.3.4 Recreational Resources

Waimanalo residents have typically depended on the natural environment for recreation, notably the beaches along Waimanalo Bay. Since the early 1980s, the district park has expanded local recreational opportunities by supporting a much wider range of activities, including space for team sports. Unlike larger communities, Waimanalo lacks a high school that might provide opportunities for shared-use facilities (e.g., a football field and running track or swimming pool), and non-profit alternatives (such as a YMCA/YWCA or the type of recreation center found in newer planned communities). Moreover, as a smaller, rural community, the area lacks many of the commercial amenities found in urban areas, such as theaters, bowling alleys, fitness centers, and videogame arcades.

3.3.5 Archaeological, Historic, and Cultural Resources

Archaeological Resources

There have been no scientific studies of archaeological or historic resources on the project site. The staff of the State Historic Preservation Division (SHPD) reviewed in-house records and, in doing so, found no documentation of any historic site at the project location[12]. Among the studies cataloged by SHPD, two pertained to sites adjoining the district park. An archaeological surface assessment survey and monitoring of subsurface excavations were conducted at the Hawaii Job Corps Center site (TMK: 4-1-009: 001, Lot A) between 1993 and 1994. The archaeological investigation found no surface or subsurface cultural remains and the report's authors noted that the area previously had been farmed and mechanically cleared.

[12] Letter from Don Hibbard, Administrator, State Historic Preservation Division dated February 20, 2001.

Parcel TMK: 4-1-009: 266, located immediately east of the district park, was the subject of another archaeological survey. Again, previous mechanical disturbance and agricultural cultivation served to negate any finding of historic sites.

Aerial photographs from the late 1970s show that the district park experienced conditions similar to the adjoining parcels and that it, too, had been cleared previously.

Cultural Resources

During field investigations of the project area, no on-going cultural practices were identified. Long-time park administrator, Eric Bunyan, reported that a traditional Hawaiian blessing ceremony was held when the park opened in 1983, but since then the park has not been used for cultural or religious purposes or for access to cultural resources by any ethnic group.[13]

3.4 TRAFFIC AND CIRCULATION[14]

Existing Roadway System

Access to the site is from a 40-foot wide, two-way asphalt roadway with concrete curbs that connects to Hihimanu Street. This roadway is the primary access to the park. The access roadway runs in a north-south direction and bisects the park. Three on-site parking lots are connected to the access road.

At the north end, the access road narrows to a 20-foot wide asphalt roadway with no curbs. This segment of the road crosses an intermittent stream along the northern boundary of the site. Vehicular access is restricted by a gate, which according to park personnel, is always locked. Two 48-inch drainage culverts cross under the roadway at the stream.

Existing Roadway System

The existing park is used for youth sports activities and often hosts regional tournaments. The existing park has 220 parking stalls located in three parking lots. The access roadway has a capacity of approximately 80 additional cars parked parallel to the curb. Vehicular access to the park is through a two-lane roadway located opposite Ahiki Street. Cars approaching on the two-lane Ahiki Street and the park access roadway are controlled by stop signs before entering the unsignalized "T"-intersection with Hihimanu Street. Hihimanu Street generally runs parallel to Kalanianaole Highway, the major roadway in the Waimanalo area that links Waimanalo with the rest of the island of Oahu. Near the project, Hihimanu Street generally runs in an east-west direction.

[13] Phone conversation with Sheila Wensel and Eric Bunyan, Department of Parks and Recreation, March 21, 2001.
[14] Traffic study prepared by Julian Ng, Inc. Report dated September 2000.

Approximately 0.8 mile east of its intersection with Ahiki Street, Hihimanu Street bends to the left (to the northeast) as it becomes perpendicular to the highway and crosses Oluolu Street; at this intersection, traffic on Hihimanu Street is controlled by stop signs. Hihimanu Street continues another 500 feet to the northeast and is stopped again at an unsignalized cross-intersection with Kalanianaole Highway. Hihimanu Street to the west of Ahiki Street is approximately 0.8 miles in length. Westbound traffic flows into Poalima Street, which meets Kalanianaole Highway at a signalized intersection approximately 700 feet from its intersection with Hihimanu Street. Each of these roadways is a two-lane street carrying two-way traffic at a posted speed limit of 25 miles per hour.

Kalanianaole Highway provides the only public road connection into Waimanalo from the north and south while providing access to adjoining properties. It has a posted speed limit of 25 miles per hour in the vicinity of the Poalima Street intersection; actual traffic flow, however, has been reported to be closer to 35 miles per hour[15].

Traffic Conditions

The State Highways Division collects traffic count data at various locations on an annual or biennial basis. These traffic counts are used to estimate traffic volumes on segments of highway. Table 6 shows the daily and peak hour volume estimates for the years 1992 through 1997 for the segments between Keolu Drive and the Bellows main gate ("near Poalima Street" in table), and between the Bellows main gate and Wailea Street ("near Hihimanu Street").

The nearest location where counts were recently taken was at the intersection of Kalanianaole Highway and Wailea Street (Oluolu Street), which is approximately 0.5 miles southeast of the intersection of Kalanianaole Highway and Hihimanu Street. Table 7 shows the daily and peak hour data from the three most recent counts that have been published.

[15] City and County of Honolulu, Department of Transportation Services. *Waimanalo Traffic Calming Charrette, Final Report.* (R. M. Towill Corporation and Walkable Communities Inc., March 2000), p. 9.

Table 6
KALANIANAOLE HIGHWAY TRAFFIC ESTIMATES

	24-hour, two-way Volume (vpd)	AM Peak Hour (vph) SEbound	AM Peak Hour (vph) NWbound	PM Peak Hour (vph) SEbound	PM Peak Hour (vph) NWbound
Kalanianaole Highway, near Poalima Street					
1992	20,864	860	705	975	800
1993	20,114	705	705	885	725
1994	19,535	585	585	860	705
1995	22,535	870	710	1,285	855
1996	19,095	840	688	840	688
1997	18,816	828	677	828	677
1998	20,017	716	585	881	721
Kalanianaole Highway, near Hihimanu Street					
1992	16,445	635	520	660	660
1993	15,604	600	490	625	625
1994	15,375	460	460	675	555
1995	16,946	650	535	765	765
1996	15,734	630	630	630	630
1997	14,473	580	580	637	521
1998	15,796	608	498	738	604

Notes: Daily volumes from State Highways Division, *Traffic Summary, Island of Oahu* (various years of the annual reports).
Peak hour volumes estimated from daily volumes and factors from the State Highways Division, as reported in the *Traffic Summary* reports.

Table 7
TRAFFIC COUNTS

Kalanianaole Highway, northwest of Wailea Street

	24-hour Count (vpd) SEbound	24-hour Count (vpd) NWbound	AM Peak Hour (vph) SEbound	AM Peak Hour (vph) NWbound	PM Peak Hour (vph) SEbound	PM Peak Hour (vph) NWbound
1993	7,434	8,368	442	415	620	666
1995	7,620	7,899	611	476	707	655
1997	7,151	8,057	629	564	566	677

Source: State Highways Division, *Traffic Survey Data, Island of Oahu*, Station 42-C

Traffic count data for other streets in the area that are affected by the proposed project are not available. However, estimates of volumes on Poalima Street and on Hihimanu Street were made based on the counts along Kalanianaole Highway and on Oluolu Street and field observations; these estimates are shown in Table 8. As indicated in the table, highest traffic volumes occur on weekends when there are special events at the park.

Table 8
TRAFFIC ESTIMATES
Side Streets, Southwest of Kalanianaole Highway

	Poalima Street		Hihimanu Street	
	SWbound	NEbound	SWbound	NEbound
Typical Weekday (vehicles per day)	1,300	1,300	900	900
AM Peak Hour (vehicles per hour)	100	175	40	75
PM Peak Hour (vehicles per hour)	135	115	75	60
Peak Weekend day (vehicles per day)	1,500	1,500	1,200	1,200
Midday Peak Hour (vehicles per hour)	120	230	80	110

The intersection of Kalanianaole Highway and Poalima Street is controlled by a traffic signal that operates in two phases, assigning the use of the intersection alternatively to highway traffic and to traffic approaching on Poalima Street. Left turns from the highway are made when there are gaps in the oncoming traffic. At a signalized intersection, non-conflicting movements such as opposing through traffic could be accommodated at the same time. Conflicting movements cause delays and increase demands on the intersection; the critical volumes, or those that impose a demand on the intersection, are often used to determine the adequacy of a signalized intersection. A vehicle spacing of one vehicle per lane every 2.5 seconds equates to a capacity of 1,440 vehicles per lane per hour. For the estimated peak hourly volumes at the intersection of Kalanianaole Highway, the critical per lane volumes are as shown in Table 9. These estimated volumes include the traffic generated by the existing park.

Table 9
EXISTING CONDITIONS
Kalanianaole Highway and Poalima Street

Peak Hour:	AM	PM	WE
Highway traffic, southeastbound	830	830	900
10% of northwestbound traffic making left turns	70	70	60
Poalima Street traffic	175	115	230
estimate of effect of shopping center exits	75	125	140
Total critical volumes	1,150	1,140	1,330
volume/capacity ratio, X_{cm}, for capacity = 1,440	0.80	0.79	0.92

The *Highway Capacity Manual*[162] defines criteria for status at signalized intersections: under capacity ($X_{cm} \leq 0.85$), near capacity ($0.85 < X_{cm} \leq 0.95$), at capacity ($0.95 < X_{cm} \leq 1.0$), and over capacity ($X_{cm} > 1.00$). For the parameters described above, the intersection of Kalanianaole Highway and Poalima Street operates at desirable under capacity conditions during weekday peak hours and at near capacity conditions during peak hours on weekends.

At the intersection of Kalanianaole Highway and Hihimanu Street, highway traffic has priority and the traffic approaching the intersection from Hihimanu Street is controlled by a stop sign. The controlled traffic must wait for a gap in highway traffic in order to cross or enter the highway. Unsignalized intersection analyses indicate that Hihimanu Street traffic would have average delays between 15 and 25 seconds, or Level of Service C (average delays at unsignalized intersections). Level of Service D conditions, for which average delays are up to 35 seconds, are considered acceptable.

[16] *Highway Capacity Manual, Third Edition, Updated December 1997* (published 1998), Table 9-15.

3.5 PUBLIC UTILITIES AND SERVICES

3.5.1 Potable Water Supply System

Water is supplied to the park by a 6-inch water lateral connected to the 8-inch Board of Water Supply (BWS) water main within Hihimanu Street (see Figure 9). The site is metered by a 4-inch compound meter located within the Hihimanu Street right-of-way, east of the access road. After the meter, the 6-inch water line turns into the access roadway. At a water main crossing near the southern parking lot, the 6-inch line reduces to a 4-inch line and continues north down the park road to supply water to the comfort station, water fountains, and the soccer/football field irrigation system. Another arm of the water main extends west with a 6-inch line cross that passes between the multi-purpose building and the gym before ending as a stub-out for future expansion. The eastern arm of the water main cross is a 4-inch line which supplies water to the Azevedo Field irrigation system.

The existing 4-inch compound meter can supply a maximum flow of 500 gallons per minute (GPM). The existing plumbing fixture and irrigation demands for the 4-inch meter is shown below. The 409 fixture units (FU) convert to approximately 130 GPM.

Description	FU
Gymnasium	151
Multi-purpose building	147
Comfort station	107
Water fountains	3
Total	409

In addition to the 4-inch compound meter serving the park, there is also an 8-inch Detector Check fire meter off the existing water service. In addition, there is a 5/8-inch water meter serving the adjacent State-owned property (TMK 4-1-09:266).

3.5.2 Existing Wastewater System

The existing gym, multi-purpose building, and comfort station are presently served by individual cesspools located to the west of each building (see Figure 10). State Department of Health officials and park personnel indicate that the cesspools are operating adequately with routine maintenance.

There are no City sewers in Hihimanu Street and no sewer improvements are planned in the near future. City sewers exist at the Waimanalo public housing area and the Hale Aupuni subdivision. However, these sewers are at a higher elevation than the park and a connection

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would require a lift station. Moreover, sewer lines that service the residential area do not have excess capacity. Alternatively, a direct sewer connection to the Waimanalo Wastewater Treatment Plant via Hihimanu Street would require the Parks Department to install and maintain a new line which extends approximately 0.8 mile.

3.5.3. Public Health and Safety Services

Fire protection is provided by Waimanalo Fire Station located at 41-1301 Kalanianaole Highway, approximately 1.5 miles from the park. The primary piece of equipment is Engine 27, serviced by a standard complement of five firefighters for each shift.

An emergency medical response team is also based at the fire station. The closest medical facilities equipped with an emergency room is Castle Memorial Hospital located in Kaneohe, approximately 4.5 miles away. Various medical and clinic offices, including Waimanalo Community Health Center, offer services close by.

Waimanalo District Park is located in District 4 of the Honolulu Police Department. District 4 is the largest patrol area of HPD, extending from Makapuu Point to Kawela Bay on the windward side of the island. A police substation is located in Kailua, approximately 5.5 miles from the park.

Up to three officers are assigned to the general vicinity of the park. The park is located within the boundaries of Beat 450, with one officer assigned to each beat. Additional officers are dispatched depending on the incident. In recent years, Waimanalo has developed an active community policing program wherein residents play a proactive role in preventing and reporting illegal activity.

According to the HPD's 1999 *Annual Report*, the following offenses were committed in Beat 450 during the year:

No. of Reports	Offenses
4	Robberies
6	Aggravated assaults
14	Burglaries
285	Larcenies
19	Auto thefts

None of the offenses can be directly attributed to Waimanalo District Park. The local police department reports that other than a few stolen cars recovered in the parking lot, there have been no major police or security issues with the park.[17] This may be due, in part, to the fact that the park is well used and the open spaces are conducive to surveillance from the street.

[17] Phone conversation with Lt. Jim Thompson, Kailua Police Substation, February 1, 2001.

4 POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

4.1 PHYSICAL ENVIRONMENT

4.1.1 Topography and Slopes

The existing terrain is virtually flat, making it suitable for the expansive play fields. The proposed action will require only minimal grading and contouring to reconstruct the playfields and to prepare building pads for new structures. One exception, the swimming pool, would involve significant excavation. Other than removal of soil and ground material, the proposed site poses no obstacle to pool construction.

4.1.2 Soils

Clayey soils in the project area are evident both in the description of soil types (see Section 3.1.2, above) and field observations of cracking in the play fields. While the high clay content has been problematic from the perspective of field maintenance, it also means a lower potential for soil erosion. Construction and other activities that disturb the soil are less likely to produce significant erosion. On the other hand, the tendency of these soils to shrink and swell, depending on moisture conditions (e.g., rainy season, irrigation, or leaky pipes), means that civil engineering must address expansive soil movement and its potential impact on building foundations. There are many methods that can be used to mitigate the effects of expansive soils, including removal and replacement of problematic soils, treatment with various soil additives, installation of barrier material (such as a membrane), and design of building foundations appropriate to the existing soil conditions and structural loads. Attention must also be given to siting and designing proposed septic tank and leach field systems for proper operations.

4.1.3 Air Quality

Emissions from construction equipment and vehicles and fugitive dust associated with construction and landscaping activities may have short-term adverse impacts on air quality. To mitigate these impacts, the following measures will be followed:

- Stockpiles will be covered with appropriate materials. Construction debris and excavated materials that will not be used for construction will be disposed of at permitted facilities.

- Water trucks will visit the sites routinely to sprinkle water on the ground to control dust. If necessary, the contractor will provide additional watering of sites.

- The contractor will use vehicles that are properly maintained.

Construction activities will employ fugitive dust emission control measure in compliance with provisions of the State DOH Rules and Regulations (Chapter 43, Section 10), and Hawaii Administrative Rules (HAR), Chapter 11-60.1, "Air Pollution Control," Section 11-60.1-33 on Fugitive Dust.

Day-to-day park operations are not expected to generate any long-term negative impact on air quality.

4.1.4 Natural Hazards

As shown previously in Figure 8, there is a small risk for flooding in the project area. Appropriate land use and siting are the first line of defense in mitigating the potential impacts of flooding. To minimize flood damage, permanent facilities are located as far away as possible from the intermittent stream.

The play fields are appropriately located adjacent to the stream channel because it places fewer improvements at risk and open, grassy surfaces will help absorb excess water. The updated master plan continues this development pattern. Major new structural improvements are located in the southern (*mauka*) part of the park. All proposed buildings and structures will have finished floor elevations that are higher than expected flood elevations.

Oahu has been assigned a low level of risk from earthquakes. The Uniform Building Code establishes standards of construction appropriate to the assigned level of seismic risk. All new construction will be designed in a manner that meets (or exceeds) the UBC safety standards.

4.1.5 Hydrology and Water Quality

Stormwater runoff is expected to increase as the master plan is implemented. When the park is fully built out, impermeable surfaces (such as rooftops, parking lots, and walkways) are expected to increase from the current level—approximately 18% of the overall park site—to an estimated 27%. Even with the 10% increase, a far smaller percentage of the park will be covered by hard surfaces than is typically the case in residential or other urbanized areas. For example, the Land Use Ordinance allows a maximum lot coverage ratio of 50% on parcels zoned for residential use. The additional runoff that is generated by the park site can be handled by existing means, i.e., on-site percolation and diversion to the drainage swales.

While the quantity of stormwater flows may increase, stormwater quality may improve slightly. As some of the grassy areas are converted into building sites, the use of fertilizer and herbicide will decrease commensurately.

Soil erosion control measures during construction may include use of cut-off ditches, temporary ground cover, and plastic barriers.

4.1.6 Noise Impacts

Implementation of the master plan is expected to affect the noise environment in three ways: short-term impacts due to construction and long-term impacts due to increased traffic volumes and routine use of the recreational facilities.

Noise levels will increase when various facilities are under construction, and these periods could last for several months. The actual noise levels will vary, depending on the specific projects and the construction techniques and equipment used. In cases where construction noise exceeds, or is expected to exceed the Department of Health's "maximum permissible" property line noise levels, a permit must be obtained from the DOH to operate vehicles, equipment, and/or tools that emit noise levels in excess of "maximum permissible" levels. To mitigate the noise impact of construction activities, all work should be conducted during daytime hours.

Noise levels may increase slightly because of increased vehicular traffic related to expanded programs offered by the district park and more diverse facilities that appeal to a larger group of users. Increases in traffic volumes will largely be constrained by the supply of parking spaces, with the master plan providing for a net increase of 40 stalls or approximately 12% more than the existing number.

Given the nature of on-site activities—fans cheering, whistles blowing, balls bouncing on hard surfaces, children playing—the district park can be a noisy place. Although there are residential areas to the north, the park is considered to be part of a more isolated and noise-tolerant rural environment. During the planning process, a community participant commented that one of the advantages of the park is the ability to make noise without disturbing neighbors.

The question is to what extent noise levels will increase with implementation of the master plan. Of particular interest are the outdoor facilities. The master plan calls for more efficient layout of the play fields to accommodate more teams in simultaneous play, especially in practice situations. Any increase in noise levels, if detectable, would be experienced during the afternoons and weekends. Bleachers are envisioned around several fields; however, this addition is not expected to increase the number of spectators, rather to increase their comfort level.

Four new outdoor play courts are proposed, as well as a tournament tennis court. The latter facility is likely to attract larger crowds from time to time. Similarly, the 50-meter swimming pool is planned as a competition-level facility. The proposed skateboard rink is another new facility that is likely to have acoustic impacts. All three of these facilities—tournament tennis court, swimming pool, and skateboard rink—are sited at the far *mauka* end

of the park which is farthest away from the residential areas and adjacent to Hihimanu Street where noises will be partially masked by the traffic.

At present, the only evening activities are those held at the gym and multi-purpose building. Recently, the district park added a second night of extended gym hours thereby enabling residents to use the facility until midnight on Friday and Saturday nights. The updated master plan calls for lighting of the outdoor play courts. If this occurs, district park managers will follow the Department of Park and Recreation's policy of turning off the lights at 9:45 p.m. to limit disturbance to surrounding uses. There are no plans to light the outdoor play fields.

4.2 BIOLOGICAL ENVIRONMENT

4.2.1 Flora

The vegetation in the areas to be cleared (along the perimeter of the park) is composed almost exclusively of introduced or alien plant species. Introduced species are all those plants which were brought to the Hawaiian Islands by humans, intentionally or accidentally, after Western contact in 1778. Only one native species, the popolo (*Solanum americanum*) was observed on the site. The popolo is indigenous or native to Hawaii and elsewhere.

None of the plants observed during field studies is a threatened and endangered species or a species of concern (U.S. Fish and Wildlife Service, 1999). This is not surprising as the study site has been disturbed and urbanized for a long period of time. No trees on the City and County's Exceptional Trees Register occur on the project site. All of the plants found on the site can be found in similar lowland, disturbed habitats throughout the islands.

Given these findings, the proposed improvements are not expected to have a significant impact on the botanical resources. There are no botanical reasons to impose any restrictions, conditions, or impediments to the proposed improvements to the park.

4.2.2 Fauna

The district park provides habitat for several species of introduced birds and small mammals. Construction activities may temporarily disturb foraging opportunities, but is not expected to have any adverse impact on wildlife.

Outdoor lighting at the park will not have adverse impacts on seabirds. Floodlights will not be utilized, and lighting fixtures will be selected to avoid the problem of light attraction and flight hazards to seabirds.

4.3 SOCIO-ECONOMIC ENVIRONMENT

4.3.1 Population and Employment

The proposed project will not affect population levels. In terms of employment, the various phases of construction will create short-term jobs for people in the design and construction fields. When the proposed facilities are constructed, long-term staffing needs will probably increase as well.[18] Filling the half-time administrative position that is currently vacant would become a higher priority. Additional part-time personnel may be needed to monitor activities as more venues are added. And another maintenance person may be necessary, especially after the pool is constructed.

It is difficult to predict where new hires would be drawn from—for either park operations or construction. However, opportunities for new jobs would be available to Waimanalo residents, as they would be for applicants from other areas. Part-time employees typically come from areas close to the job site.

4.3.2 Surrounding Land Uses

Residents in the surrounding area could be adversely affected by more intensive use of the park. Noise and outdoor lighting are possible nuisances. These can be mitigated, however, by the design of equipment and fixtures and by controlling the hours of operation.

The master plan provides for lighting of the play courts, parking areas, and pedestrian path. These types of lights are not as bright or intrusive as field lights because the lamps are designed to illuminate a defined area, rather than flood a wide, expansive field. Poles tend to be shorter, total wattage is lower, and cut-off type fixtures can be installed to control the angle of the beam. The objective is to shine down, rather than out horizontally.[19] In addition to lighting design, the City Parks Department has a policy of turning off court lights at 9:45 p.m.[20] so that outdoor activities are restricted to reasonable hours[21].

4.3.3 Visual and Scenic Resources

Because the park is located on the makai side of Hihimanu Street, it does not impede the mauka views from this rural road. The tallest improvement is the existing gym. None of the proposed improvements will be taller than the gym. There are no residences whose mauka views would be blocked.

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[18] Phone conversation with Sheila Wensel, January 26, 2001.
[19] Phone conversation with electrical engineer Rick Moss of Moss Engineering, October 24, 2000.
[20] Phone conversation with Sheila Wensel on October 24, 2000.
[21] Extended hours are available at the gym. At the request of the Waimanalo Neighborhood Board, the gym is open until midnight on Fridays and Saturdays to give residents more recreational opportunities on the weekend.

4.3.4 Recreational Resources

The proposed project will increase and diversify recreational opportunities available to Waimanalo residents.

4.3.5 Archaeological, Historic, and Cultural Resources

The State of Hawaii Department of Land and Natural Resources State Historic Preservation Division (DLNR-SHPD) reviewed the Master Plan and indicated that there are no known historic sites at the project location, though it noted that no archaeological survey has been conducted for the district park parcel. In a letter dated February 20, 2001, DLNR-SHPD stated that they believe that the proposed repairs and refurbishing to the existing facilities will have "no effect" on significant historic sites (see Appendix). Since no historic sites or artifacts were found when the ground was disturbed to construct the existing park facilities, and based on archaeological investigations conducted on adjacent sites, it is unlikely that historic sites or artifacts will be encountered during construction of new facilities or improvements. However, should any unidentified cultural remains be uncovered at any time during construction, work in the immediate area will cease and the DLNR-SHPD and the Oahu Island Burial Council will be notified.

Act 50 requires that a proposed action's impact(s) on the cultural practices of a community be disclosed in the environmental review process. Among the park managers who have been affiliated with the park for almost twenty years, there is no knowledge of traditional cultural practices involving the park site and they report that no cultural practices have taken place on park grounds since it opened.[22] The updated master plan would not alter the fundamental use patterns of the park. Access is governed by the Park Department's regulations and operational needs.

4.4 TRAFFIC AND CIRCULATION

4.4.1 Changes in Traffic Volumes Due to the Proposed Project

The improved facilities are expected to increase the use of the park during weekdays. Peak conditions, however, would continue to occur on weekends during regional tournaments and other special activities. The increase in peak hourly traffic due to the improvements is expected to be proportional to the increase in parking provided (management of the use of the site will avoid overcrowding). The forty additional stalls will increase the existing 330-car capacity to 370 cars, or an increase of 12%. Estimated increase in traffic in one direction is 25 vehicles per hour during the weekend peak hour. Traffic volumes after the project is

[22] Phone conversation with Sheila Wensel and Eric Bunyan, Department of Parks and Recreation, on March 21, 2001.

completed are summarized in Table 10 and conditions at the signalized intersection of Kalanianaole Highway and Poalima Street are shown in Table 11.

Table 10
TRAFFIC WITH PROJECT
Side Streets, Southwest of Kalanianaole Highway

	Poalima Street		Hihimanu Street	
	SWbound	NEbound	SWbound	NEbound
Typical Weekday (vehicles per day)	1,320	1,320	910	910
AM Peak Hour (vehicles per hour)	105	175	45	75
PM Peak Hour (vehicles per hour)	135	120	75	65
Peak Weekend day (vehicles per day)	1,600	1,600	1,250	1,250
Midday Peak Hour (vehicles per hour)	130	250	85	120

Table 11
EXISTING CONDITIONS
Kalanianaole Highway and Poalima Street

Peak Hour:	AM	PM	WE
Highway traffic, southeastbound	840	840	910
10% of northwestbound traffic making left turns	70	70	60
Poalima Street traffic	175	120	250
estimate of effect of shopping center exits	75	125	140
Total critical volumes	1,160	1,155	1,360
volume/capacity ratio, X_{cm}, for capacity = 1,440	0.81	0.80	0.94

Note: WE = weekend

As indicated in Table 11, under capacity conditions describe the weekday peak hours while the weekend peak hour would be near capacity; these conditions are unchanged from existing conditions. Similar minor changes are expected at the unsignalized intersection of Hihimanu Street and Kalanianaole Highway.

The proposed project is not expected to significantly affect traffic conditions in the area. Beyond the immediate area, the added traffic at any location would be less than three percent of existing traffic and would have minor, if any, effects.

4.4.2 Parking

The City and County of Honolulu Land Use Ordinance (LUO) governs parking requirements. The LUO does not contain specific parking requirements for parks and play fields; however, it does specify parking requirements for indoor and outdoor recreational facilities.[23]

Of the existing and proposed facilities, the gym, multi-purpose building, multi-sport building, and outdoor courts generate specific LUO parking requirements. The LUO specifies that indoor and outdoor recreational facilities require one stall per 200 square feet of recreational space and 3 stalls per court. Sports arenas require one stall per 75 square feet of assembly area or one stall per 5 fixed seats, whichever is greater. Based on the LUO, the gym, which has a seating capacity of 890, requires 178 parking stalls. The multi-purpose building requires 28 stalls, and it is estimated that the new multi-sport building will require 25 stalls. The play court complex, with 8 courts planned for the short term will require 24 stalls. Therefore, in the initial phase of the plan, the total parking requirement is estimated to be 255 stalls (see Table 12). This figure includes only facilities for which there is a published requirement. Excluded are parking needs that may be generated by the play fields.

At present, there are an estimated 300 parking spaces. The three parking lots can accommodate 220 cars. Both sides of the internal roadway are also used for parking and it is estimated that another 80 cars can be accommodated through parallel parking on the access road. The total of 300 parking spaces exceeds the parking requirement calculated previously. However, park administrators report that parking is inadequate when the outdoor and indoor facilities are in full use. The master plan, therefore, recommends expanding the *makai* side of the main lot to create an additional 40 parking spaces.

Existing parking lot during periods of heavy use.

[23] Zoning review staff in the City and County of Honolulu Department of Planning and Permitting calculate precise parking requirements on a project-by-project basis; typically when plans are checked for permit approval.

A minimum of 9 stalls in the existing parking lots must be handicap-accessible according to the Americans with Disabilities Act Accessibility Design Guidelines (ADAAG). When the main lot is enlarged by another 40 stalls, 2 more handicap stalls must be provided. At least one of the accessible stalls is required to be "van accessible," which means providing wider access aisles (minimum of 96 inches).

Table 12: Estimated Parking Requirements

Space	LUO Requirement	Calculation	Required Stalls
Facilities:*			
Gym (existing)	1 stall per 5 fixed seats	890 seats/ 5	178
Multi-Purpose Building (existing)	1 stall per 200 sf of recreational space	5,550 sf / 200 sf	28
Multi-Sport Building (new construction)	1 stall per 200 sf of recreational space	5,000 sf / 200 sf	25
Open Pavilion/Hale (new construction)	1 stall per 200 sf of recreational space	1,764 sf / 200 sf	9
Play Courts	3 stalls per play court	8 courts x 3 stalls	24
Total			264
Parking:			
Parking lots			220
Parallel parking along internal access road			80
Expansion lot (new)			40
Total			340

*Parking requirements based on the City and County of Honolulu, Land Use Ordinance.
Excludes parking needs associated with the play fields.
Excludes parking needs for long-range projects and the future park expansion area.

4.5 PUBLIC UTILITIES AND SERVICES

4.5.1 Public Utilities

Water System

The existing water system is adequate to support the proposed improvements. New water lines for the drinking fountains in Azevedo Field will tap off the existing water system. Irrigation improvements will tap off the existing irrigation system (see Site Utilities Plan, Figure 11). A new 2-inch water line extending westward from the existing comfort station will serve the drinking fountains and the proposed court improvements. A new 4-inch line tapping off the existing 6-inch line that runs adjacent to the gym will serve the proposed multi-sport building, swimming pool, and expanded court complex. No improvements will need to be made to the existing water meter as additional meter capacity is available up to 500 gallons per minute.

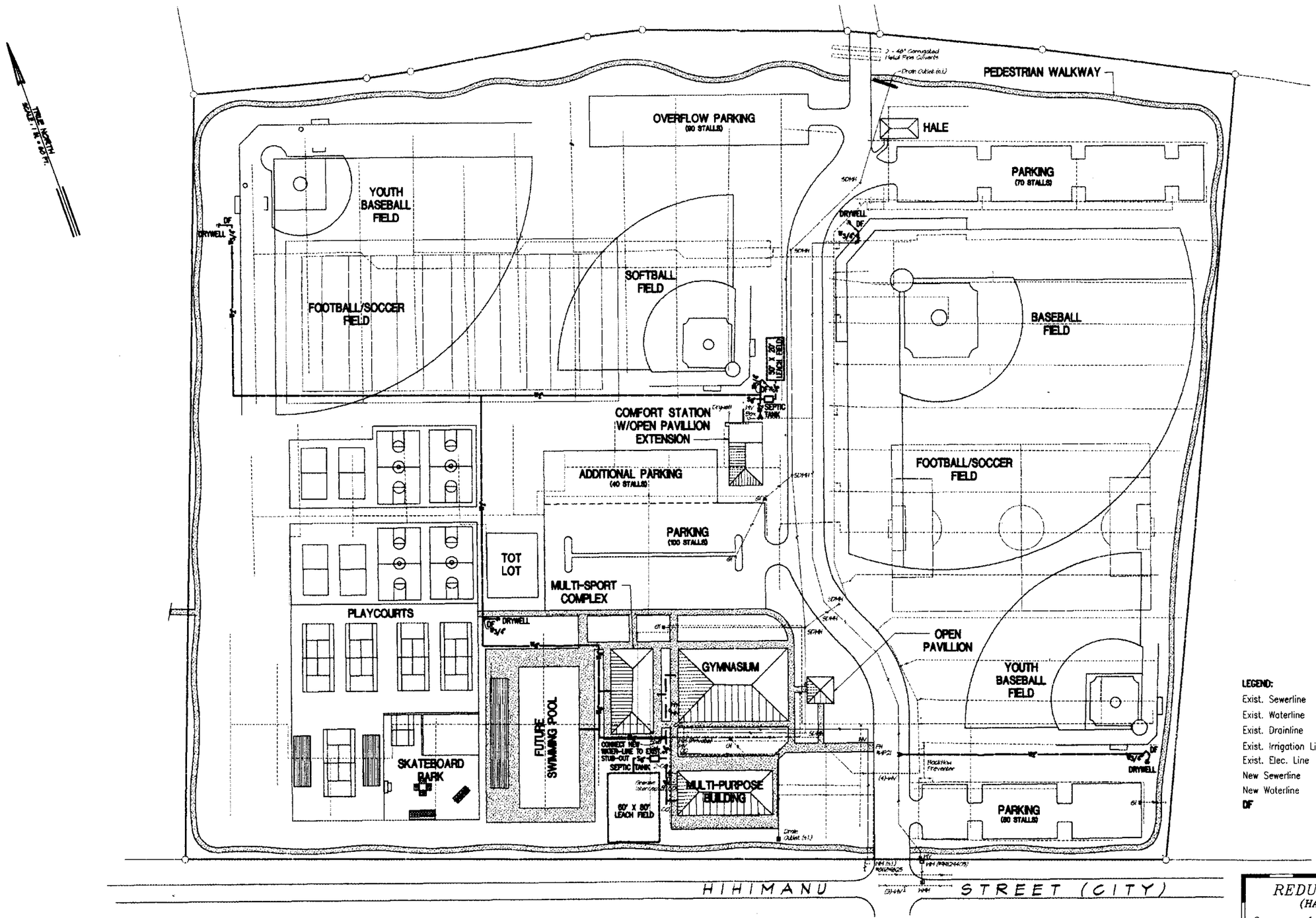
The existing fire hydrant should provide adequate coverage for all proposed structures.

Wastewater System

All existing structures are presently serviced by cesspools. The master plan calls for abandonment of the existing cesspools and the installation of a septic tank and leach field system(s) (see Figure 11). The septic tanks and leach fields would be designed and constructed in accordance with State Department of Health standards.

The leach fields should be sized and located to accommodate the expected maximum capacity expected from all proposed structures so that additional percolation lines are added as improvements are constructed. An open area adjacent to the proposed swimming pool and multi-sport building is preferable.

The number of septic tanks that will eventually service the park will be determined by construction phasing; however, the intent is for each tank to service as many structures as possible. Because of its location, the existing comfort station will be connected to its own septic tank and leach field system.



LEGEND:

Exist. Sewerline	—S24—
Exist. Waterline	—W4—
Exist. Drainline	—DI2—
Exist. Irrigation Line	
Exist. Elec. Line	—E—
New Sewerline	—S24—
New Waterline	—W4—
DF	New Drinking Fountain

REDUCED PLAN
(HALF SIZE)
0 1 2 3
3 INCHES OF ORIGINAL PLAN

FIGURE 11

ULTIMATE SITE UTILITIES PLAN | SCALE 1" = 80' | 1

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY & COUNTY OF HONOLULU

WAIMANALO DISTRICT PARK
MASTER PLAN
AT
WAIMANALO, KOOLAUPOKO, OAHU, HAWAII

ULTIMATE SITE UTILITIES PLAN

DESIGNED BY: DA
DRAWN BY: DA
CHECKED BY: DM
DATE: DEC. 2000
APPROVED:

JOB NO.
DRAWING NO.
SHEET NO. OF
FILE NO.

Stormwater Drainage

Drainage for the proposed master plan improvements will be handled primarily by sheet flow following existing drainage patterns to the surrounding swales. No adverse drainage impacts to the park are expected.

Any drainage structures around the buildings would be relatively small area drains that discharge to open areas or into the swales. Drainage from the main parking lot extension would be designed to sheetflow into the adjacent fields where the runoff will percolate naturally into the ground.

In addition to a Department of Health permit to operate a public freshwater swimming pool, a National Pollution Discharge Elimination System (NPDES) permit will be required to drain the pool. The pool water discharge system would need to remove the chlorine from the water.

4.5.2 Public Services

The demand for police, fire, and emergency medical services is likely to increase as park improvements attract greater numbers of users and the overall level of physical activity at the park increases. Because these services are required on an episodic basis, it is unlikely that the proposed action, in itself, will require any change in the level of services provided to the community as a whole.

Park improvements are also expected to enhance security and safety features within the park. During the first phase of implementation, there are provisions to add lighting to the parking lots and court complex, and to provide a lighted perimeter path for pedestrians and joggers. Lighting will create a safe, illuminated environment for park users and help to deter criminal activities after dusk. Where appropriate, the design of specific facilities will incorporate the strategies of Crime Prevention Through Environmental Design (CPTED), which advocates:

- natural surveillance through extensive "see-through" design and visual connection between uses
- access control to deter unwanted entry
- territorial reinforcement to foster a sense of ownership in the environment

On-site fire protection requirements will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

5 CONFORMANCE WITH LAND USE PLANS, POLICIES, AND REGULATIONS

5.1 STATE GOVERNMENT

Various State plans, policies, and land use controls provide guidelines for development within the State of Hawaii.

5.1.1 Hawaii State Plan

The 1996 Hawaii State Plan (Chapter 226, HRS) is the umbrella document in the statewide planning system. It serves as a written guide for the future long-range development of the state by describing a desired future for the residents of Hawaii and providing a set of goals, objectives, and policies that are intended to shape the general direction of public and private development.

Among the policies included in the State Plan are several related to leisure and recreation. The Waimanalo District Park Master Plan is consistent with the State's efforts to promote leisure activities. The updated master plan provides a blueprint for future improvements at the park, thereby ensuring that existing facilities are repaired and modernized (including alterations that comply with the Americans with Disabilities Act), and new facilities are sited appropriately and programmed in a logical sequence. The master plan is intended to offer the Waimanalo community a wider range of indoor and outdoor recreational opportunities and, in doing so, supports the following State objectives and policies:

SEC. 226-23 Objective and policies for socio-cultural advancement—leisure.

(a) Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.

(b) To achieve the leisure objective, it shall be the policy of this State to:

(1) Foster and preserve Hawaii's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.

(2) Provide a wide range of activities and facilities to fulfill the cultural, artistic, and recreational needs of all diverse and special groups effectively and efficiently.

(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.

(5) Ensure opportunities for everyone to use and enjoy Hawaii's recreational resources.

(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.

(7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawaii's people.

5.1.2 State Land Use Classification

The State Land Use Commission, pursuant to Chapter 205 and 205A, HRS and Chapter 15-15, Hawaii Administrative Rules, is empowered to classify all lands in the State into one of four land use districts: urban, rural, agricultural and conservation. The district park falls within the "Urban" classification. Activities or uses that fall within the Urban classification are regulated by the City and County of Honolulu.

5.2 City and County of Honolulu

5.2.1 Oahu General Plan

First adopted in 1977, the City and County of Honolulu General Plan specifies long-range objectives and policies to guide future growth on the island. The General Plan contains social, economic, environmental, and design objectives and associated policies intended to promote the general welfare and prosperity of Oahu residents.

One element of the Oahu General Plan relates to culture and recreation. As the master plan is implemented in the coming years, the popular and well-used park will become even more responsive to the needs of local residents. The proposed action, is therefore consistent with the following objectives and policies in the Oahu General Plan:

Culture and Recreation, Objective D: To provide a wide range of recreational facilities and services that are readily available to all residents of Oahu.

Policy 1: Develop and maintain community-based parks to meet the needs of the different communities on Oahu.

Policy 7: Provide for recreation programs which serve a broad spectrum of the population.

Policy 12: Provide for safe and secure use of public parks, beaches, and recreation facilities.

5.2.2 Koolaupoko Sustainable Communities Plan

The Honolulu City Charter mandates that community-oriented plans be prepared for each of the eight planning regions on Oahu. The project site is located in the Koolaupoko region, an urban fringe area that stretches from Makapuu Point to Kaoio Point at the northernmost end of Kaneohe Bay. A charter amendment in 1992 redefined the plans as "conceptual schemes" whose purpose is to describe the "desired urban character and the significant natural, scenic, and cultural" environment of each region and to provide "priorities... (for the) coordination of major development activities." Based on this new orientation, the City began a program to review and revise the plans. The revised Koolaupoko Sustainable Communities Plan (SCP) went into effect in August 2000.

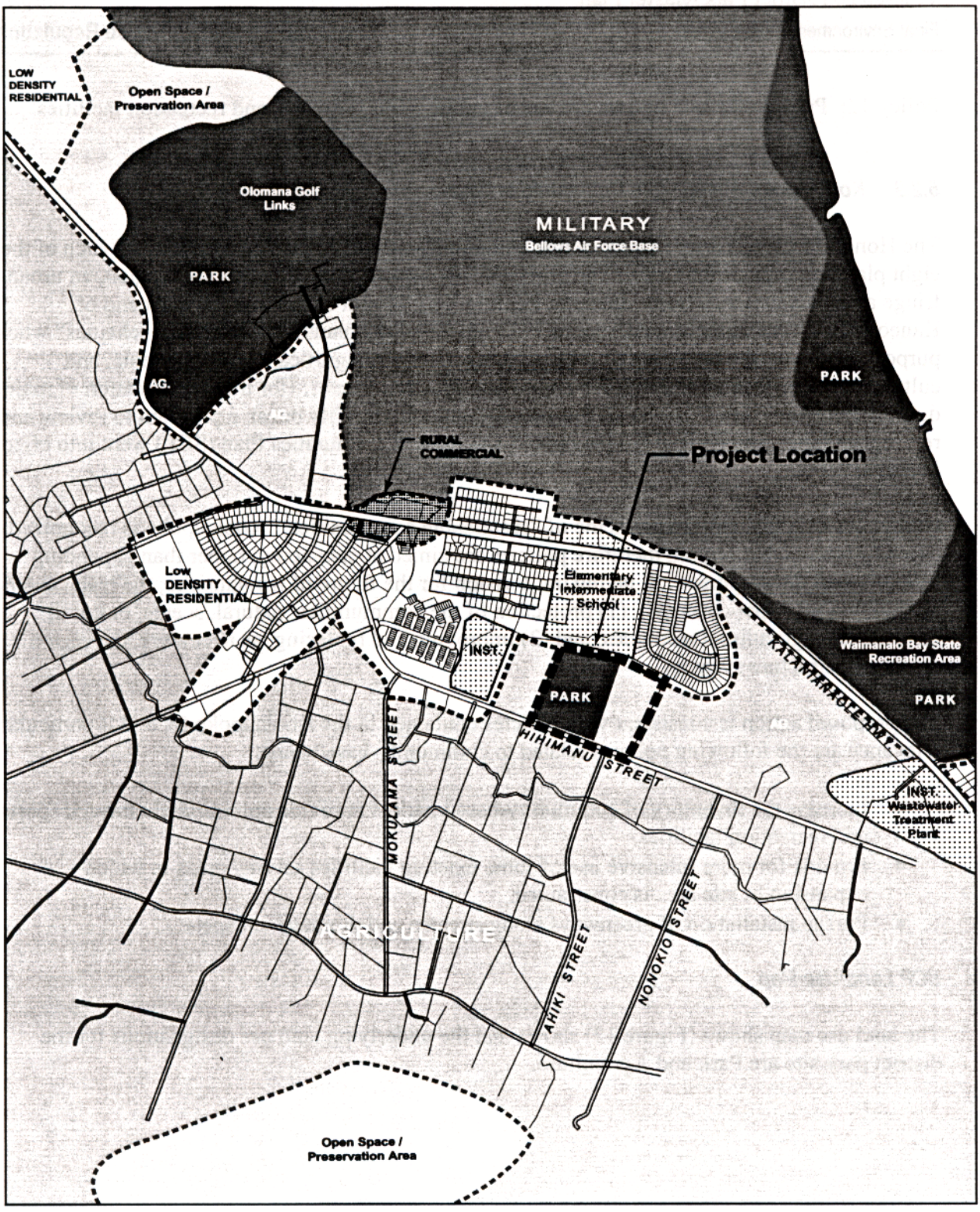
Consistent with the underlying theme of "sustainable communities," Koolaupoko is recognized as a relatively stable region, therefore policies are aimed at enhancing, rather than expanding new physical development. In laying out a vision for the future of Koolaupoko, the plan centers around two principal concepts: (1) protection of the communities' natural, scenic, cultural, historic, and agricultural resources, and (2) improving and replacing, as necessary, the region's aging infrastructure systems.

The proposed action is consistent with policies contained in the Koolaupoko SCP. Of particular relevance are the following policies related to community-based parks:

- Increase the inventory of community-based parks to provide appropriately located sports and recreation facilities.
- Provide for more intensive use of some existing facilities serving areas in which expansion of site area is constrained.
- Pursue installation of greenways along streams and drainage channels.

SCP Land Use Map

The land use map shows (Figure 12) shows that the underlying land use designations for the district park site are Park and Agriculture.



0 1500 3000
SCALE IN FEET

N

KIMURA INTERNATIONAL

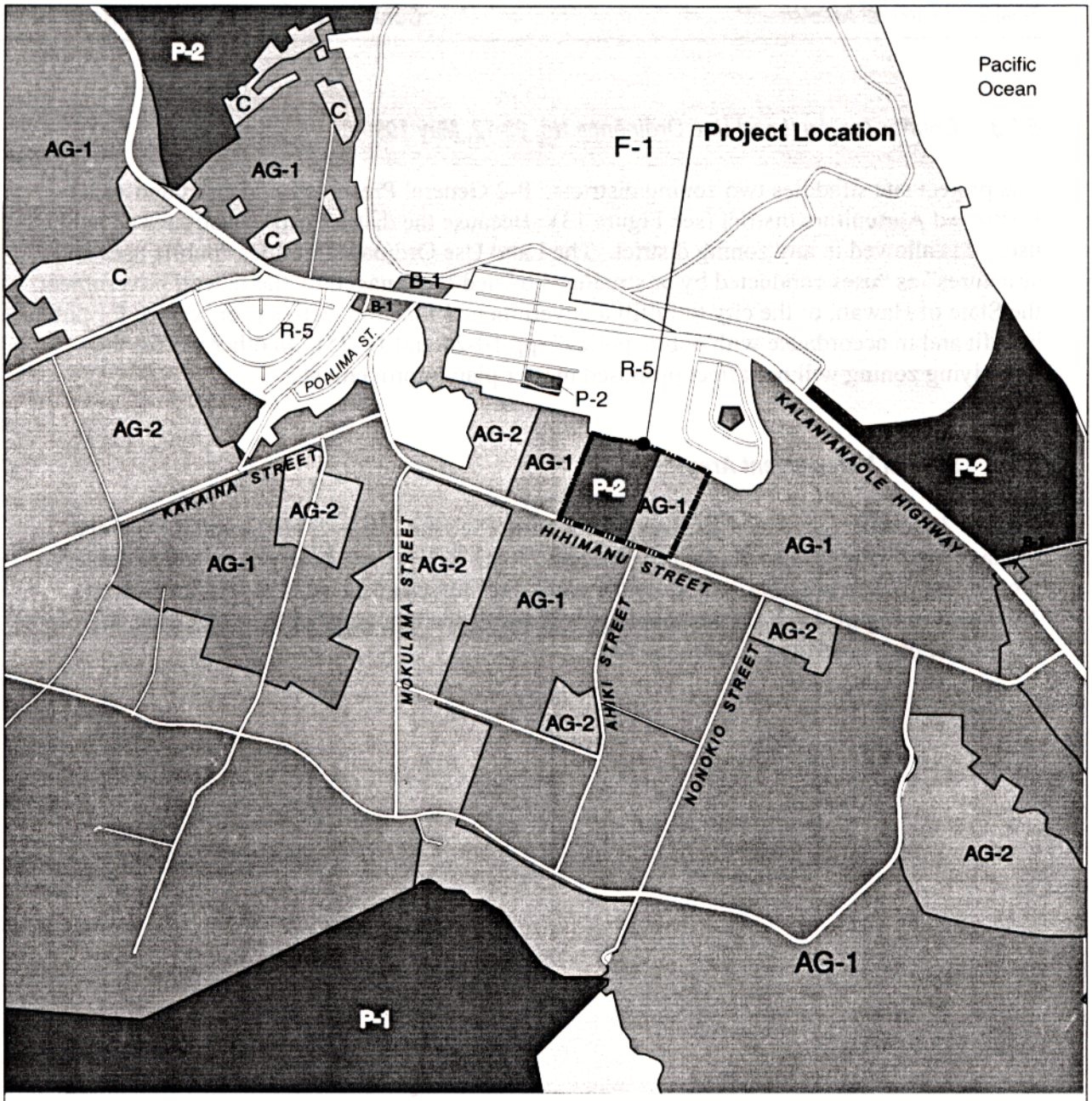
Figure 12
SUSTAINABLE COMMUNITIES MAP
Waimanalo District Park

5.2.3 County Zoning (Land Use Ordinance No. 99-12, May 1999)

The project site straddles two zoning districts: P-2 General Preservation district and AG-1 Restricted Agriculture district (see Figure 13). Because the district park constitutes a "public use," it is allowed in any zoning district. The Land Use Ordinance defines "public uses and structures" as "uses conducted by or structures owned or managed by the federal government, the State of Hawaii, or the city to fulfill a governmental function, activity, or service for public benefit and in accordance with public policy" (pp 10-24 and 10-25). In other words, the underlying zoning will not affect proposed master plan improvements.

5.2.4 Special Management Area

Coastal Zone Management objectives and policies (Section 205A-2, HRS) and the Special Management Area (SMA) guidelines (Section 25-3.2 ROH) have been developed to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawaii. As shown in Figure 14, Kalanianaole Highway forms the boundary of the SMA area, therefore the district park is located outside the SMA.



LEGEND

P-1	Restricted Preservation	C	Country
P-2	General Preservation	B-1	Neighborhood Business
AG-1	Restricted Agriculture	R-5	Residential
AG-2	General Agriculture	F-1	Military & Federal

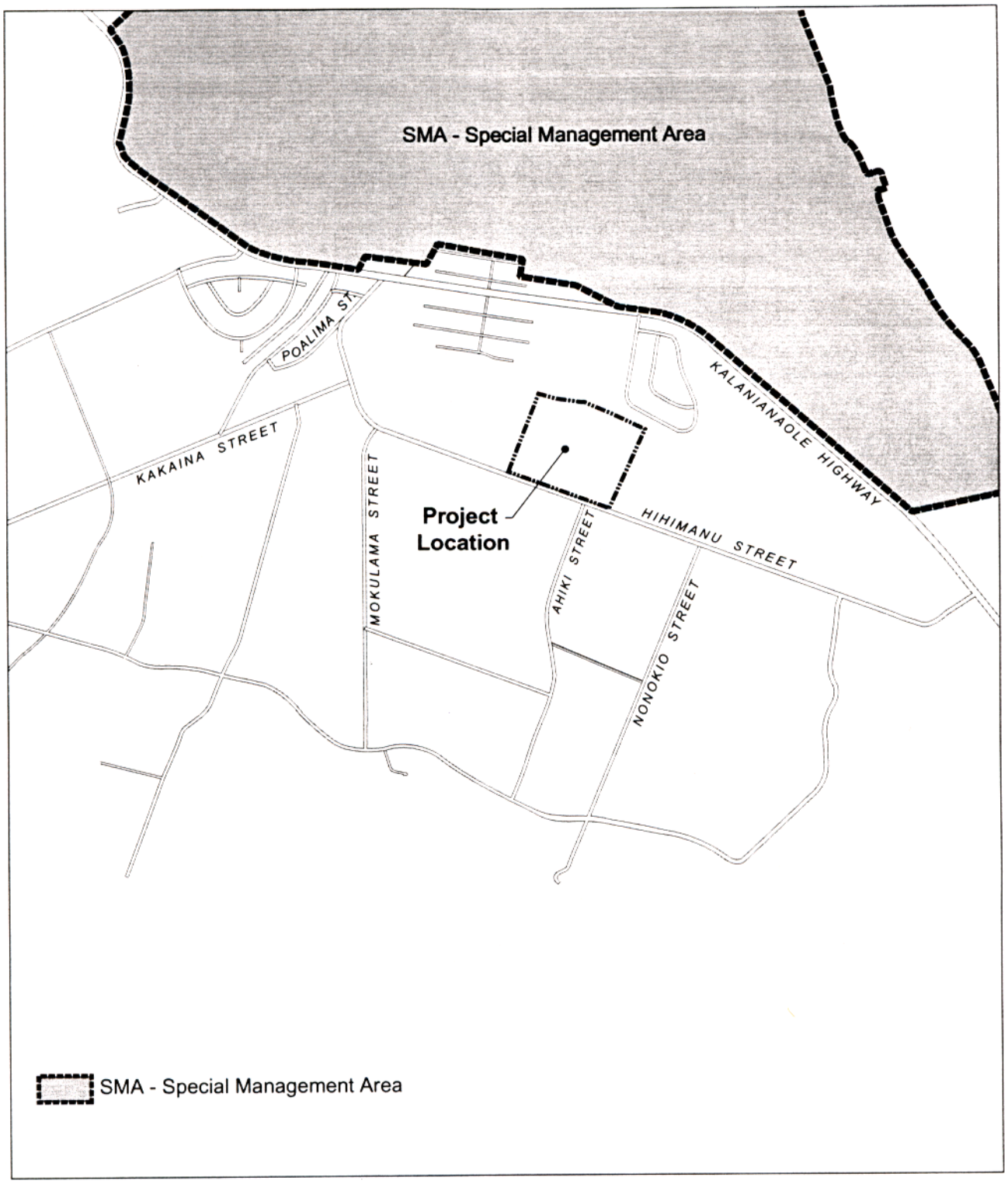
0 1500 3000
SCALE IN FEET

N

KIMURA INTERNATIONAL

FIGURE 13

COUNTY ZONING MAP
Waimanalo District Park



0 1500 3000
SCALE IN FEET

N

KIMURA INTERNATIONAL

FIGURE 14

SMA BOUNDARY
Waimanalo District Park

6 POSSIBLE ALTERNATIVES

6.1 NO ACTION

If no action is taken, i.e., the master plan is not implemented, existing facilities will not be refurbished and they will continue to be underutilized. Although normal maintenance activities would continue, the larger, corrective measures would be deferred. The public's investment in those facilities will degrade as facilities deteriorate through inadequate repair. New facilities that might further expand recreational opportunities will not be available. Residents of the Waimanalo community would be affected most directly since they would not be able to enjoy the improvements envisioned in the master plan. On the other hand, the "no action" alternative would yield cost savings or enable the City to reallocate funds to other projects. Either of these consequences is likely to shift benefits to residents in other areas of the island.

6.2 DELAYED ACTION

Design and construction projects are contingent on funding. If funding for master plan proposals is deferred or delayed, park users will continue to rely on existing facilities until upgrades are initiated. Delaying improvements at the park will not significantly alter the environmental consequences of the project. In addition, project costs are likely to increase because of inflation and changes in economic and labor supply conditions.

6.3 ALTERNATIVE DESIGNS

The master plan is actually a composite based on three alternative designs, the merits of which were deliberated by members of the vision team and the technical consultants. Components of the three alternatives are compared in Table 13.

Design Alternative 1

This alternative contains the least amount of change to existing park facilities. The existing court complex would be expanded to include a total of 4 basketball courts, 4 volleyball courts, and 8 tennis courts. To allow for multiple use of the court space, the basketball and volleyball courts could be overlaid with striping for two roller hockey courts.

This alternative includes one additional baseball field and one additional softball field located at the northwest corner of the site, where the football/soccer field currently exists. The existing football/soccer field is then rotated to provide regulation-size football and soccer fields, without intruding on the infield areas of the baseball and softball fields.

The arrangement of the fields allows for alternating use, while maintaining adequate dimensions and orientation requirements for competitive athletic events. Because field space is shared

between different sports, football goal posts and soccer goals would be installed and removed as needed.

In addition to the existing gym, multi-purpose building, and comfort station, Design Alternative 1 includes a new multi-sport building and new open pavilion (*hale*). The new multi-sport building is located next to the gym and multi-purpose building and would provide additional space for indoor activities. The open pavilion is located next to the multi-purpose building and the park entrance, and would function as a covered outdoor gathering area. Design Alternative 1 also includes a 25-yard swimming pool located between the tennis courts and the new multi-sport building. New trees are planted around the parking lots and throughout the park perimeter.

This alternative contains a total of 260 permanent (paved) parking stalls and 86 overflow (gravel) parking stalls, with the main parking lot expanded to include approximately 40 additional stalls. Overflow parking is located at the northeast corner of the park, alongside the stream, and between the proposed new baseball field and the pedestrian access.

Design Alternative 2

Design Alternative 2 presents a higher density development option than Alternative 1. This alternative maximizes the use of existing space within the park for the development of new and expanded park facilities.

The existing court complex is expanded to include a total of 8 basketball courts, 4 volleyball courts, 6 regular tennis courts, one tournament tennis court with bleachers, and one practice tennis court. To allow for flexible use of court space, the basketball and volleyball courts could be overlaid with striping for 4 roller hockey courts.

This alternative includes two additional softball fields in the northwest corner of the park where the football/soccer field is currently. Like Design Alternative 1, the arrangement of the play fields allows for multi-purpose use of the fields, while maintaining adequate dimensions and orientation requirements for competitive sporting events. The arrangement of fields in this alternative also allows for the installation of permanent bleachers for the football/soccer field. When fields are used for different sports, football goal posts and soccer goals would be temporarily installed and removed as needed.

Similar to Design Alternative 1, the existing baseball/softball field (Azevedo Field) is overlaid by a second football/soccer field. The existing baseball field has a 90' x 90' diamond and a 350' playing field, which meets tournament field standards for youth league baseball and high school level baseball. The new and existing softball fields shown in this alternative have 60' x 60' diamonds and 200' play fields which are standard playing field dimensions for women's softball league play. Both the new and existing football/soccer fields are sized to accommodate competition play up to adult soccer league level.

In addition to the existing gym, multi-purpose building, and comfort station, Alternative 2 includes a new multi-sport building, a new open pavilion (*hale*), and a second multi-purpose building. The new multi-sport building, located between the existing multi-purpose building and

a proposed 50-meter swimming pool, would provide additional space for indoor sports. A second multi-purpose building, located next to the gym, near the entrance of the park, would increase the amount of space for recreational, classroom, and social activities. In this alternative, the open pavilion is located between the new tournament tennis court and the proposed 50-meter pool. The pavilion would function as an outdoor gathering area.

Design Alternative 2 includes a new 50-meter swimming pool, located between the tennis courts and the new multi-sport building. The 50-meter pool would be sized to accommodate competitive swim meets, but could be sectioned off with movable bulkheads to provide smaller activity spaces when needed.

Design Alternative 2 also features additional landscaping along the walkway between the gym and court complex, and along the *mauka* and *makai* boundaries of the park. In addition to the landscaping improvements, this alternative shows picnic tables located at the far end of the play fields, near the stream bank at the northwest corner of the site.

This alternative contains a total of 260 permanent off-street parking stalls and 162 overflow parking stalls, with the main parking lot expanded to include approximately 40 additional stalls. At the northeast end of the site, the existing parking lot is expanded to include an overflow parking area with approximately 70 stalls. A second overflow parking lot is provided between the existing football/soccer field and the stream.

Design Alternative 3

Of the three concepts, Design Alternative 3 presents the highest density and the greatest amount of overall park development. Similar to Alternative 2, this alternative maximizes the use of space within the existing park for the development of new and expanded park facilities. What distinguishes Design Alternative 3 is a doubling of available land area should the park expand to the east, outside its existing boundaries. It presents a picture of future development possibilities were the park to integrate approximately 25 acres of adjacent State-owned property.

There are two points of entry for the park, with a continuous loop road providing internal access for vehicles. The existing entrance/exit along Hihimanu Street serves as the primary entry to the park, while a secondary entry is located to the east, opposite Nonokio Street. The secondary entry would be needed to provide efficient circulation within the park during large events, such as baseball and softball tournaments. It would also provide emergency vehicular access to facilities in the expansion area. As a security option, the secondary entry could be closed off when large-scale events are not taking place, or when the expansion area fields are not in use.

In addition to the existing gym, multi-purpose building, and comfort station, Design Alternative 3 includes a new multi-sport building, a new open pavilion (*hale*), and a second multi-purpose building. Like Design Alternative 2, this one contains a future 50-meter swimming pool with bleachers for spectators.

In Design Alternative 3, the existing court complex is expanded to include a total of 8 basketball courts, 4 volleyball courts, 6 regular tennis courts, one tournament tennis court with bleachers,

and two practice tennis courts. Like the previous alternatives, the basketball and volleyball courts are overlaid with striping for four roller hockey courts.

Similar to Design Alternative 1, this alternative adds one baseball field and one softball field in the northwest portion of the park where the football/soccer field currently exists. The existing football/soccer field is rotated to provide regulation-size football and adult level soccer fields without intruding on the infield areas of the baseball and softball fields. A second football/soccer field also overlays the existing baseball field in the eastern portion of the park. The baseball fields shown in this alternative have 90' x 90' diamonds and 350' playing fields, which meet tournament field standards for youth league baseball and high school level baseball. The new softball field has a 60' x 60' diamond and a 200' play field, the standard playing field dimensions for women's softball league play. Both the new and existing football/soccer fields are sized to accommodate competition play up to adult soccer league level.

Like the other alternatives, the arrangement of fields allows for flexible use, while maintaining the dimension and orientation requirements for competitive sporting events. Because field space is shared between different sports, football goal posts and soccer goals would be installed and removed as needed.

In this alternative, the existing softball field in the southeastern portion of the park is replaced by an amphitheater which could be used for various community functions, such as cultural events and performances. Located between the amphitheatre and access road is a small multi-purpose building that would be used for cultural activities.

The park expansion area is developed to include a new baseball complex comprised of one youth league baseball/high school baseball tournament field with bleachers, one youth league baseball tournament field, and two practice youth league baseball fields.

Both tournament fields in the baseball complex meet general field orientation requirements due to their general north-south orientation. The youth baseball/high school baseball tournament field has a 90' x 90' diamond and a 350' playing field, which meets tournament field standards for these levels of play. The youth baseball tournament field contains a 60' diamond and a 250' playing field.

The practice fields each contain 60' x 60' diamonds and 200' playing fields. Due to their size and general east-west orientation, these fields would not be ideal for tournament play. However, they would provide more field space for holding practices and tournament consolation games.

At the far eastern end of the expansion area, the outfield of one of the practice baseball fields is overlaid with a permanent, regulation-size football field, equipped with permanently installed goal posts. The outfield of the youth league/high school tournament baseball field could be temporarily overlaid by a standard-size, adult level soccer field.

In Design Alternative 3, the number of permanent off-street parking stalls would be expanded from 220 to approximately 490. In addition to expanding the main parking lot, this alternative shows several additional parking areas located throughout the park, providing convenient access

to play fields and other facilities. An overflow parking area is also provided in the northeast end of the expansion area along the internal access road.

Table 13: Summary of Features in Alternative Park Designs

Features	Alternative 1	Alternative 2	Alternative 3*
Outdoor Courts			
Basketball courts	4	8	8
Volleyball courts	4	4	4
Tennis courts	8 1 practice backstop/ handball	6 1 practice backstop/ handball 1 tournament court (w/ bleachers)	6 1 practice backstop/ handball 1 tournament court (w/ bleachers)
Roller Hockey (striped over volleyball & basketball courts)	2	4	4
Skateboard park	1	1	1
Play Fields			
Baseball fields	2	1	6
Softball fields	2	3	1
Soccer/Football Fields (shared use)	2	2	3
Football field w/ track	--	--	1
Facilities			
Gym	Repair	Repair	Repair
Multi-purpose Building	Repair	Repair	Repair
Comfort Station	Repair/expand existing	Repair/expand existing	Repair/expand existing 2 new
Multi-sport building	1	1	1
Open Pavilion (hale)	2	2	3
Swimming Pool	25 yards	50 meters w/ bleachers	50 meters w/ bleachers
	1	1	1
Parking**			
Permanent stalls	260	260	490
Overflow stalls	86	162	--
Total stalls	346	422	490
Other			Equestrian trail Picnic tables Second entrance way

* Includes proposed facilities in the long-term expansion area.
** In parking lots only.

Evaluation of the Design Alternatives

All three of the arrangements maximized development in the southwest quadrant of the park. Each of the plans contained an expanded court complex. A swimming pool was also featured in each of the arrangements, although Design Alternative 1 contained a 25-yard pool, while Design Alternatives 2 and 3 contained a 50-meter pool. The final plan includes the 50-meter pool which satisfies the regulations for competitive swim meets. All of the alternatives included a new multi-sports building that would house space for a variety of indoor sports, and some type of open pavilion was located near the main structures.

Sites for new structures were constrained because of a desire to optimize the functional relationships among the facilities and to make the supporting infrastructure system as efficient as possible. For example, a previously installed water line stub-out intended for a future swimming pool limited where the pool could be located. There was more flexibility in other instances. Each of the three alternatives proposed a different location for the open pavilion—one site was rejected because it was not visible from the roadway; another was rejected because it would require relocating a large monkeypod tree.

In other respects, there were slight, but distinct differences among the alternatives. Design Alternative 1 included relatively heavy landscaping around the perimeter of the park. Design Alternative 2 focused on amenities for passive recreation, such as picnic tables. Design Alternative 3 included a proposal for an amphitheater in what is currently Azevedo Field. The master plan that achieved consensus represents a decided preference for keeping the playfields as open as possible—in essence, maintaining the status quo. The amphitheater idea was dropped. Fewer play courts are included in the master plan which allows more trees to be planted around the park. Passive recreation is accommodated by a pedestrian/jogging path that is partially shaded by trees and lighted in the evening. The resulting plan thus maintains a balance between indoor and outdoor spaces and activities. Even with construction of several new facilities, the built-up area will increase by only 10%.

7 ANTICIPATED DETERMINATION

Based on the information described in this document, the proposed project is not expected to result in significant social, economic, cultural, or environmental impacts. Consequently, a finding of no significant impact is anticipated pursuant to the provisions of Subchapter 6 of Chapter 200, Title 11, Hawaii Administrative Rules of the Department of Health.

8 FINDINGS AND REASONS SUPPORTING THE ANTICIPATED DETERMINATION

Potential effects of the proposed project were evaluated on the basis of significance criteria in Section 11-200-12 (Hawaii Administrative Rules, revised in 1996) and are summarized below.

Significance Criteria

1. **The project does not involve an irrevocable commitment to loss or destruction of any natural or cultural resources.**

   No loss or destruction of any natural or cultural resource will be involved. The project area is already developed as a park and, even prior to its current use, had been disturbed by agricultural operations. It is unlikely that cultural artifacts will be discovered below ground; however, should future excavation uncover items of potential cultural significance, archaeological monitoring may be necessary.

2. **The project does not curtail the range of beneficial uses of the environment.**

   The proposed improvements do not curtail the range of beneficial uses of the environment. The area is dedicated to park and recreational use, and that use will be enhanced. There will be a slight loss of open space with the addition of new structures; however, the master plan calls for new buildings to be clustered for efficient use of space. The park will retain an overall feeling of openness.

3. **The project does not conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.**

   The proposed project is consistent with the environmental goals, policies, and guidelines defined in Chapter 344, HRS. The project is associated with efforts to reserve and use land for essentially non-commercial purposes, i.e., public recreation. It also recognizes that open space uplifts the quality of human life. The park is not a wild space, but neither is it a built-up space. For the typical urban or suburban resident, the park is the safest, most convenient, and accessible open space.

   The following guidelines are from the "Parks, Recreation, and Open Space" section of the State Environmental Policy (Chapter 344, HRS) and apply specifically to the proposed action:

   (a) Establish, preserve, and maintain scenic, historical, cultural, park and recreation areas, including the shorelines, for public recreational, educational, and scientific uses;

(c) Promote open space in view of its natural beauty not only as a natural resources, but as an ennobling, living environment for its people.

4. The project does not substantially affect the economic or social welfare of the community or state.

The project is expected to have a positive effect on the social welfare of the community. Proposed facility modifications and new construction will support individual and family activities, as well as the activities and programs of the City Parks Department and other groups.

5. The project does not substantially affect public health.

The project's effect on public health is expected to be a positive one. Increasingly, our society recognizes the necessity of recreation and physical exercise in maintaining good health and well-being.

As public facilities, all buildings and supporting infrastructure will be constructed in accordance with all health, safety, and accessibility (ADA) regulations.

6. The project does not involve substantial secondary impacts, such as population changes or effects on public facilities.

The proposed action is intended for use by the existing population and to accommodate normal growth. It is not expected to generate population change on a magnitude that will create secondary demands and impacts on public facilities and services.

7. The project does not involve a substantial degradation of environmental quality.

The subject site is not environmentally pristine and does not have any biological resources of significance. The updated master plan plots out an incremental course for the district park's full development. The proposed action is evolutionary—not revolutionary—based on the development constraints imposed by the site itself and existing facilities.

8. Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions.

The development phases are progressive, beginning with the community's highest priority. As projects are completed, new ones would be initiated. However, the various elements are independent and not contingent on each other. The City's fiscal resources will ultimately regulate the pace of development.

9. The project does not affect any rare, threatened, or endangered species, or its habitat.

No significant biological resources will be adversely affected by the proposed action.

10. The project does not detrimentally affect air or water quality or ambient noise levels.

Air and water quality impacts are not expected to be detrimental; however, ambient noise levels could increase as additional facilities are built. Noise, especially at night, is a well-recognized concern. Park managers work to balance noise levels (and nuisance to neighbors) against the ability of community members to use facilities in the evening—when they have free time. To mitigate adverse noise impacts, new facilities are sited away from residential areas and departmental guidelines and regulations will be followed regarding activity scheduling and shut-off time for outdoor court lights.

11. The project does not affect nor is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters.

The proposed project lies in an area that is vulnerable to 100-year floods. However, it is possible to mitigate the risk by designing structures so that finished floor elevations are higher than expected flood levels.

12. The project does not substantially affects scenic vistas and view planes identified in county or state plans or studies.

Some of the residents who participated in the master planning process commented that the park's open space allows users to appreciate the beauty of the surrounding Koolau range. The master plan would maintain this sense of openness. Proposed improvements do not obstruct views from any recognized view corridor or scenic roadway.

13. The project does not require substantial energy consumption.

Energy in the form of gasoline and diesel fuel will be consumed during construction. Additionally, energy will be used to operate the buildings (i.e., for indoor lights and electrical appliances) and outdoor lights. It is anticipated that all buildings will be designed to take advantage of natural ventilation, thereby avoiding mechanical air-conditioning. The amount of energy that will be consumed is not considered substantial.

The analysis contained in this Environmental Assessment has determined that the project will not have significant adverse impacts on the environment. The City and County of Honolulu, Department of Design and Construction is considering issuing a Finding of No Significant Impact (FONSI). Anticipated impacts will be temporary and will not adversely impact environmental quality in the area. Therefore, it is recommended that an Environmental Impact Statement (EIS) not be required.

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10. Persons and Agencies Consulted in the Master Plan Update and in Preparation of the Final Environmental Assessment

10.1 The following individuals assisted in the master plan update by attending vision meetings and/or participating in the design charrette.

Gloria Ahuna
Bernard Apo
Eric Bunyan
Phillip Ellsworth
Gregory Field
Pete Gregorson
Ben Kama
Kawahine Kamakea-Ohelo
David Larsen
Scotty K. Reis-Moniz
Kuulani Reynolds
Joe Ryan
Erlinda T. Sarvida
Spencer C. Solomon
Mabel Ann Spencer
Margaret Tanner
Stewart Wada
Kilauea Wilson

10.2 The following individuals were consulted in preparing the Draft and Final Environmental Assessment.

Department of Parks and Recreation
Sheila Wensel
Eric Bunyan

Police Department, Kailua Substation
Lt. Jim Thompson

State Historic Preservation Division
Elaine Jourdane

10.3 The availability of the Draft EA was published in the August 23, 2001 Environmental Notice with a public comment deadline of September 22, 2001. The organizations and agencies listed below were contacted during the 30-day comment period. Their major written comments are summarized. A copy of the DEA was also placed at the Waimanalo Public Library for public review.

Agency/Organization	Letter Date	Major Comments
Federal Agencies		
Department of the Army, U.S. Army Engineer District	8/24/01	DA permit not required. Flood hazard info is correct.
Department of the Interior		
U.S. Fish and Wildlife Service	--	
U.S. Geological Survey	--	
Hawaii Job Corps Center	--	
State Agencies		
Department of Business, Economic Development & Tourism, Office of Planning	--	
Department of Education, Windward District Superintendent	--	
Waimanalo Elementary and Intermediate Schools		
Department of Hawaiian Home Lands	9/12/01	Support for project.
Department of Land and Natural Resources		
Land Division	--	
State Historic Preservation Division	8/27/01	No effect on significant historic sites.
Department of Health		
Environmental Management Division	--	
Office of Environmental Quality Control	8/30/01	Clarification/revisions to figure/table. Potential lighting hazards to birds. Traffic concerns. In Final EA, include correspondence from pre-consultation phase & with DLNR-SHPD.
Disability and Communication Access Bd	10/9/01	Access to public transportation. Accessibility of existing and proposed facilities. Include general accessibility statement.
Department of Transportation		
Office of Hawaiian Affairs	8/28/01	Add text regarding notification of SHPD and Oahu Island Burial Council.

Agency/Organization	Letter Date	Major Comments
University of Hawaii, Environmental Center	9/21/01	Traffic and wastewater management concerns. Use recycled materials, implement energy efficiency and conservation measures.
City and County of Honolulu		
Mayor's Office Vision Office	--	
Department of Environmental Services	--	
Department of Facility Maintenance	--	
Department of Parks and Recreation	9/21/01	Support for project.
Department of Planning and Permitting	9/18/01	Expansion Area may be incompatible with Koolaupoko Sustainable Communities Plan. Waivers may be needed for bldg. Height, setbacks, off-street parking. Need for septic tanks and leach fields for wastewater.
Department of Transportation Services	--	
Board of Water Supply	9/24/01	Off-site water system adequate to accommodate improvements. Minor addition to description of existing water service.
Fire Department	9//13/01	For new multi-sport building, provide private water system, fire access road within 150 feet of most remote structure.
Police Department	9/12/01	Recommend crime prevention through environmental design. Potential impacts on traffic and parking.
Private and Community Organizations and Elected Officials		
Councilmember John Henry Felix	--	
Waimanalo Neighborhood Board No. 32	--	
State Representative Joe Gomes	--	
State Senator Fred Hemmings	--	

10.4 The following are the comment letters received during the Draft EA 30-day comment period. Corresponding response letters are attached.

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF

August 24, 2001

Civil Works Technical Branch

RECEIVED
'01 AUG 28 P2:18
FACILITIES DESIGN & ENG.
DEPT. OF DESIGN & CONST
C & C OF HONOLULU

Mr. Gary Doi
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96843

Dear Mr. Doi:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) for the Waimanalo District Park Master Plan, Waimanalo, Oahu (TMK 4-1-9: 264). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. Based on the information provided, a DA permit will not be required for the project.

b. The flood hazard information provided on page 28 of the DEA is correct.

A copy of this letter has also been furnished to Mr. Glenn Kimura, 1600 Kapiolani Boulevard, Suite 1610, Honolulu, Hawaii 96814. Should you require additional information, please contact Ms. Jessie Dobinchick of my staff at (808) 438-8876.

Sincerely,

James Pennaz

James Pennaz, P.E.
Chief, Civil Works
Technical Branch

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 Fax: (808) 523-4567
Website: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

RAE M. LOUI, P. E.
DIRECTOR

GEORGE T. TAMASHIRO, P. E.
DEPUTY DIRECTOR

ERIC G. CRISPIN, AIA
ASSISTANT DIRECTOR

October 30, 2001

Mr. James Pennaz, P. E.
Chief, Civil Works Technical Branch
Department of the Army
U. S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Dear Mr. Pennaz:

Subject: Draft Environmental Assessment (EA) for the Waimanalo District Park Master Plan, Tax Map Key 4-1-09: 264, Oahu, Koolaupoko District

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan and for your comments of August 24, 2001.

We acknowledge your assessment that a Department of Army permit is not required and your verification of flood hazard information presented in the report.

We appreciate your input to the environmental assessment process

Very truly yours,

FOR RAE M. LOUI, P. E.
Director

RML:ei

cc: Kimura International, Inc.

BENJAMIN J. CAYETANO
GOVERNOR
STATE OF HAWAII

RECEIVED
SEP 10 2001

RAYNARD C. SOON
CHAIRMAN
HAWAIIAN HOMES COMMISSION

JOBIE M. K. M. YAMAGUCHI
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAII 96805

September 12, 2001

Mr. Gary Doi
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96843

Dear Mr. Doi:

Subject: Waimanalo District Park Master Plan
Draft Environmental Assessment (DEA)

Thank you for the opportunity to review the subject report for improvements at the existing Waimanalo District Park located at 41-415 Hihimanu Street, Tax Map Key 4-1-09:264.

The Department of Hawaiian Home Lands (DHHL) administers a homesteading program with 644 families in Waimanalo. (U.S. Census 2000 total of 3,028 people or about 4.7 per household) While usable DHHL lands are limited, area population should increase with opening this month of an 84-unit Kupuna housing project near the corner of Kalanianaole Highway and Nakini Street, and future residential projects on 32 acres above the old quarry and on 12 acres near Kumuhau and Humuniki Streets.

We support park improvements that will add social and recreational opportunities for residents of Waimanalo. If you have any questions, contact Joe Chu of our Planning Office at 587-6421.

Aloha,

Raynard C. Soon, Chairman
Hawaiian Homes Commission

c: Kimura International, Inc.
Office of Environmental Quality Control

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 Fax: (808) 523-4567
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P. E.
DIRECTOR

GEORGE T. TAMASHIRO, P. E.
DEPUTY DIRECTOR

ERIC G. CRISPIN, AIA
ASSISTANT DIRECTOR

October 30, 2001

Mr. Raynard C. Soon, Chairman
Hawaiian Homes Commission
Department of Hawaiian Home Lands
State of Hawaii
Post Office Box 1879
Honolulu, Hawaii 96805

Dear Mr. Soon:

Subject: Draft Environmental Assessment (EA) for the Waimanalo District Park Master Plan, Tax Map Key 4-1-09: 264, Oahu, Koolaupoko District

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan and for your comments of September 12, 2001.

We acknowledge the information provided regarding the expected population growth in the district park's service area, as well as your support for enhanced recreation and social opportunities afforded by park improvements.

We appreciate your input to the environmental assessment process.

Very truly yours,

FOR RAE M. LOUI, P. E.
Director

RML:ei

cc: Kimura International, Inc.

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

GILBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DEPUTIES
JANET E. KAWELO
LINNEL NISHIOKA

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

AUG 29 2001

August 27, 2001

Mr. Gary Doi
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96843

LOG NO: 28073
DOC NO: 0108EJ23

Dear Mr. Doi:

SUBJECT: Chapter 6E-8 Historic Preservation Review – Master Plan for
Waimanalo District Park
Waimanalo, Ko`olaupoko, O'ahu
TMK: 4-1-009:264

Thank you for the opportunity to provide comment on the Draft Environmental Assessment (DEA) for the Waimanalo District Park. We provided comment to Kimura International during their EA preparation phase.(SHPD Log 26961). Our earlier comments, which have been summarized in the DEA, stated that we believed that the proposed repairs and refurbishing to the existing facilities will have "no effect" on significant historic sites should be included in full in the Final EA. We also requested that we have the opportunity to review any construction plans or other relevant materials for all new facilities or new improvements proposed in the master plan in order to provide an assessment if any, these projects would have on significant historic sites

Should you have any questions, please feel free to call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

Aloha,

for C. D. Ogata

Don Hibbard, Administrator
State Historic Preservation Division

EJ:jk

c: ✓ Glen Kimura, Kimura International, 1600 Kapiolani Blvd., Suite 1610, Honolulu, Hawaii 96814

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P. E.
DIRECTOR

GEORGE T. TAMASHIRO, P. E.
DEPUTY DIRECTOR

ERIC G. CRISPIN, AIA
ASSISTANT DIRECTOR

October 30, 3001

Mr. Don Hibbard, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

Dear Mr. Hibbard:

Subject: Draft Environmental Assessment (EA) for the Waimanalo District Park Master Plan, Tax Map Key 4-1-09: 264, Oahu, Koolaupoko District

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan and for your comments of August 27, 2001.

We acknowledge your assessment that proposed repairs and refurbishing to existing facilities will have "no effect" on significant historic sites. Your office will be given an opportunity to review construction plans for new facilities to assess any impact these improvements may have on significant historic sites.

We appreciate your input to the environmental assessment process.

Very truly yours,

FOR Rae Loui

RAE M. LOUI, P. E.
Director

RML:ei

cc: Kimura International, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
236 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

August 30, 2001

Rae Loui, Director
Department of Design & Construction
650 South King Street
Honolulu, Hawaii 96813

Attention: Gary Doi

Dear Ms. Loui:

Subject: Draft Environmental Assessment (EA) for **Waimanalo District Park Master Plan**

We have the following comments to offer:

1. Two-sided pages: In order to reduce bulk and save on paper, please consider printing on both sides of the pages in the final document.

2. Paving; landscaping: HRS 103D-407 requires the use of recycled glass in paving materials whenever possible, and HRS 103D-408 requires the use of native Hawaiian flora whenever and wherever possible. For the text of these sections of HRS contact our office for a paper copy or go to our homepage at http://www.state.hi.us/health/oeqc/guidance/index.html.

3. Sustainable building techniques: Please consider applying sustainable building techniques presented in the "Guidelines for Sustainable Building Design in Hawaii." In the final EA include a description of any of the techniques you will implement. For a paper copy contact our office or go to our homepage at *http://www.state.hi.us/health/oeqc/guidance/sustainable.htm*.

4. Figures and tables:

In Figure 5 in the final EA include a legend on this figure to describe what the 2 different background colors (green and light gray) mean. Show which elements are proposed (for example, with a bold outline or by italicizing their labels) and include this in the legend. Also add a label to Azevedo Field, mentioned several times in the text.

In Table 2 the right column is headed "A&E Fees." What does this stand for?

5. Lighting: Some types of lighting, if improperly illuminated and oriented, can cause disorientation of some species of birds as they overfly, resulting in bird strikes and individual mortalities. Be sure your consultation with the US Fish & Wildlife Service includes a description of the lighting that is planned, so that they may advise you on preventive measures, if needed.

6. Traffic: Traffic has been known to bottleneck at Hihimanu and Kalanianaole Highway. Other bottlenecks may occur following special events, especially with the park's expanded usage. The draft EA states that impacts to traffic would be insignificant. Has the situation been fully analyzed? In the final EA please expand your discussion on this.

7. Contacts:

a. In the final EA include copies of any correspondence from the pre-consultation phase. Be sure to include all correspondence from the comment period as well.

b. In the final EA it is essential that you enclose copies of your correspondence with the State Historic Preservation Division of DLNR stating the "no effect" determination.

8. Two-sided pages: In order to reduce bulk and save on paper, please consider printing on both sides of the pages in the final document.

If you have any questions, call Nancy Heinrich at 586-4185.

Sincerely,

GENEVIEVE SALMONSON
Director

c: Glenn Kimura

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P. E.
DIRECTOR

GEORGE T. TAMASHIRO, P. E.
DEPUTY DIRECTOR

ERIC G. CRISPIN, AIA
ASSISTANT DIRECTOR

October 30, 2001

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Draft Environmental Assessment (EA) for the Waimanalo District Park Master Plan, Tax Map Key 4-1-09: 264, Oahu, Koolaupoko District

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan and for your comments of August 30, 2001. We offer the following response to your comments:

Two-sided Pages

The draft EA was reproduced with two-sided pages, as will the final EA.

Paving and Landscaping

Information regarding the use of recycled glass will be conveyed to the project's architects. Native plants have been incorporated into the landscaping plan.

Sustainable Building Techniques

Facilities currently being designed take advantage of several sustainable building techniques. The facilities are sited in an area already developed for park use and are accessible to pedestrians and bicyclists from nearby schools and residential areas. The building sites are relatively flat, requiring minimal grading and no disruption to existing drainage patterns.

In response to community preferences, buildings are being designed for multiple purposes, thereby, maximizing their utility over many years.

Figures and Tables

Figure 5 will be annotated to indicate that the colored area depicts the main planning area and is the subject of the EA. The gray area, on the other hand, shows improvements intended for the long-term future and are outside the scope of the EA. This distinction is made in the text; however, a note will be added to the figure itself.

The term "A&E Fees" refers to Architect and Engineering Fees. An explanatory note will be added to Table 2.

Lighting

The Fish and Wildlife Service provided a brochure with guidelines for reducing the problem of light attraction and flight hazards to seabirds. The guidelines recommend that large, high-intensity floodlights be avoided and that shielded lights, cut-off luminaries, or indirect lighting be installed whenever possible. The outdoor lighting needs of the master plan do not require floodlights. Lighting fixtures will be selected to mitigate adverse impacts on seabirds and to minimize glare on nearby residential properties.

Traffic

The EA acknowledges that special events may put a strain on local roadways, resulting in periodic traffic jams. The State's Department of Transportation and its consultant are currently studying traffic conditions on Kalanianaole Highway and various proposals to address safety and capacity issues.

We appreciate your input to the environmental assessment process.

Very truly yours,

FOR RAE M. LOUI, P. E.
Director

RML:ei

cc: Kimura International, Inc.

DISABILITY AND COMMUNICATION ACCESS BOARD

919 Ala Moana Boulevard, Room 101 • Honolulu, Hawaii 96814
Ph (808) 586-8121 (V/TDD) • Fax (808) 586-8129

October 9, 2001

Mr. Gary Doi
Department of Design and Construction
City and County of Honolulu
650 South King Street
Eleventh Floor
Honolulu, HI 96813

Regarding: Waimanalo District Park Master Plan
Draft Environmental Assessment

Dear Mr. Doi,

Thank you for extending the review period time to respond to the Draft Environmental Assessment for the Waimanalo District Park Master Plan submitted to our office for comment. The purpose of our review on the proposed plan is to ensure that the final master plan of this project will take into account accessibility for persons with disabilities.

We offer the following comments:

1. This project falls within the scope of the Americans with Disabilities Act (ADA), Title II, covering state and local governments, and §103-50 Hawaii Revised Statues (HRS). Although the technical requirements are nearly identical, there may be areas of difference. Also, §103-50 HRS, contains a requirement for a review process by the Disability and Communication Access Board.

2. The State Land Use Commission has designated the land use for this proposed master plan as "Urban." The City and County of Honolulu regulate activities or uses that fall within the "Urban" classification. The long range proposed plan is intended to expand and to improve the existing developed outdoor recreational facilities as well as to address a proposed future land acquisition. It includes but is not limited to, improved outdoor recreation access routes for pedestrians, providing an additional entrance and roadway for vehicular traffic, adding parking facilities, and providing for additional recreational and social facilities. However, access to public transportation has not been addressed. The plan should ensure that all the features and routes will incorporate appropriate walking surfaces connecting all accessible features within the park starting not only from accessible parking and from public transportation stops but also from the interiors of existing and future proposed facilities.

3. Although the current Americans with Disabilities Act Accessibility Guidelines (ADAAG) does not have final design guidelines for some of the above elements, the U.S. Architectural and Transportation Barriers Compliance Board has already issued many recommendations or proposed guidelines. Those guidelines and any subsequent final guidelines should be incorporated into your planning process. Since this master plan is very long range and may not be fully implemented for many years we anticipate the evolving final guidelines to ultimately impact all future designs.

   For your reference, the U.S. Architectural and Transportation Barriers Compliance Board has available the published documents (1) "Americans with Disabilities Act Accessibility Guidelines; Recreation Facilities; Proposed Rulemaking," Federal Register July 9, 1999, and (2) the Regulatory Negotiation Committee on "Access to Outdoor Developed Areas, Final Report," published September 1999. Both documents will provide this project with information that may be helpful in the long range planning of the site.

   For further information contact the Office of Technical and Information Services, U.S. Architectural and Transportation Barriers Compliance Board, 1331 F Street, NW, Suite 1000, Washington, D.C. 2004-1111; phone numbers (202) 272-5434, (202) 272-5449(TTY). E-mail address and to access publication: www.access-board.gov.

4. We recommend including a general accessibility statement in the final master plan for the Recreation Master Plan:

   "All facilities will be designed to meet the requirements of the Americans with Disabilities Act and the requirements of §103-50 Hawaii Revised Statues. Buildings, facilities, and sites shall also incorporate the best design practices as noted in the Americans with Disabilities Act Accessibility Guidelines; Recreation Facilities; Proposed Rulemaking, Federal Register, July 9, 1999, and the recommendations from the U.S. Access Board's Regulatory Negotiation Committee on Access to Outdoor Developed Areas or other current documents providing for outdoor recreation areas."

The above reflects staff's technical assistance comments. They do not reflect our Board's approval or disapproval of the plan, per se. There are no further comments to offer at this time. Thank you for giving this opportunity to provide comment.

If you have any questions or concerns, please feel free to contact Mr. Gary Batcheller, Facility Access Specialist, or Mr. Ben Gorospe, Access Coordinator, at 586-8121.

Sincerely,

Francine Wai

FRANCINE WAI
Executive Director

c: Glenn Kimura
Kimura International, Inc.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 Fax: (808) 523-4567
Website: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

RAE M. LOUI, P. E.
DIRECTOR

GEORGE T. TAMASHIRO, P. E.
DEPUTY DIRECTOR

ERIC G. CRISPIN, AIA
ASSISTANT DIRECTOR

October 30, 2001

Ms. Francine Wai, Executive Director
Disability and Communication Access Board
Department of Health
State of Hawaii
919 Ala Moana Boulevard, Room 101
Honolulu, Hawaii 96814

Dear Ms. Wai:

Subject: Draft Environmental Assessment (EA) for the Waimanalo District Park Master Plan
Tax Map Key 4-1-09: 264, Oahu, Koolaupoko District

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan and for your comments of October 9, 2001. We offer the following response to your concerns:

The master plan provides for accessibility in the existing and proposed facilities and the connections among them. In some cases, the work plan calls for retrofitting facilities (such as baseball field dugouts and drinking fountains) so that they comply with the ADA guidelines.

What is beyond our control is public transportation service. Bus routes through Waimanalo are very limited. The bus stop closest to the district park is located on Kalanianaole Highway, which means walking up Ahiki Street and through the "back" entrance on the makai side of the park--more than one-quarter mile away. The final EA will be revised to include the general accessibility statement you provided.

We appreciate your input to the environmental assessment process.

Very truly yours,

FOR RAE M. LOUI, P. E.
Director

RML:ei

cc: Kimura International, Inc.

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

August 28, 2001

Mr. Gary Doi
Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, HI 96843

SUBJECT: Waimanalo District Park Master Plan

Dear Mr. Doi:

Thank you for the opportunity to comment on the above referenced project, which describes construction and repair of recreation facilities in the Waimanalo District Park.

In Section 4.3.5 ***Archaeological, Historic, and Cultural Resources***, please amend the language to reflect that if any unidentified cultural remains are discovered, the State Historic Preservation Division and the Oahu Island Burial Council will be notified.

If you have any questions, please contact Jerry B. Norris at 594-1847.

Sincerely,

Colin C Kippen Jr

Colin C. Kippen, Jr.
Deputy Director
Hawaiian Rights Division

cc: OHA Board of Trustees
Clyde Namu'o, OHA Administrator
Genevieve Salmonson, OEQU
Glenn Kimura, Kimura International, Inc.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 Fax: (808) 523-4567
Website: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

RAE M. LOUI, P. E.
DIRECTOR

GEORGE T. TAMASHIRO, P. E.
DEPUTY DIRECTOR

ERIC G. CRISPIN, AIA
ASSISTANT DIRECTOR

October 30, 2001

Mr. Colin C. Kippen, Jr.
Deputy Director
Hawaiian Rights Division
Office of Hawaiian Affairs
State Of Hawaii
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Kippen:

Subject: Draft Environmental Assessment (EA) for the Waimanalo District Park Master Plan, Tax Map Key 4-1-09: 264, Oahu, Koolaupoko District

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan and for your comments of August 28, 2001.

The final EA will be revised to state that if any unidentified cultural remains are discovered, the State Historic Preservation Division and the Oahu Island Burial Council will be notified.

We appreciate your input to the environmental assessment process.

Very truly yours,

FOR RAE M. LOUI, P. E.
Director

RML:ei

✓cc: Kimura International, Inc.

University of Hawai'i at Mānoa

Environmental Center
A Unit of Water Resources Research Center
Krauss Annex 19• 2500 Dole Street • Honolulu, Hawai'i 96822
Telephone: (808) 956-7361 • Facsimile: (808) 956-3980

September 21, 2001
EA: 0269

Mr. Gary Doi
City and County of Honolulu
Department of Design and Construction
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Dear Mr. Doi:

Draft Environmental Assessment
Waimanalo District Park Master Plan
Waimanalo, Hawaii

The City and County of Honolulu, Department of Design and Construction proposes to construct improvements at Waimanalo District Park to implement an updated Master Plan. Near-term improvements consist of repairs to the existing playfields, gym multipurpose building and comfort station; lighting for the play courts and outer parking lots; construction of a lighted /walking path and landscaping. Longer-term improvements include expansion of the main parking lot, additional play courts, bleachers for the playfields, a 50-meter swimming pool, a second pavilion, and skateboard facility. Proposed new construction includes a 5,000-square foot multi-sport building and a pavilion of approximately 1, 760 square feet. The site is located within the boundaries of the 26-acre district park located at 41-415 Hihimanu Street. The estimated cost of the project is approximately $5,000,000.

This review was prepared with the assistance of Aly El-Khadi, Water Resources Research Center; and Niyati Ni, Environmental Center.

General Comments

In general, we find that the draft Environmental Assessment (EA) provides for improvements and modifications for the Waimianalo District Park based on the need for correction of potential safety hazards, as well as to maximize the use of the existing facilities. However, there are several areas of concern, such as traffic and wastewater issues, which need to be examined in greater detail.

Traffic

Due to the proposed improvements to the recreational park, additional users will bring increased traffic, which will be added to the already heavy load of weekend traffic. This traffic concern relates mostly to the intersection of Hihimanu Street and Kalaniana'ole Highway. The existing traffic signal already creates major delays during weekends and rush hours, and most of the park usage will occur on Saturdays because of soccer and other youth league schedules. Managing traffic in the region will require expansion of the capacity of Kalaniana'ole Highway, as well as improvements to the intersection mentioned above.

Wastewater

The proposed wastewater septic tank and leach field raises wastewater management issues that have been the subject of previous community concerns. Our reviewers would prefer that wastewater from the park be routed to existing municipal collection systems. However, the existing Waimanalo wastewater treatment plant is close to capacity, and effluent is disposed into drywells, which have caused clogging problems in the past. If the wastewater treatment plant were converted to a pumping station, then a force main could be constructed to transfer Waimanalo's wastewater to the Enchanted Lake collection system for eventual treatment at the Aikahi WWTP and subsequent offshore disposal.

Miscellaneous

We urge the use of recycled materials in the design and construction of this project. We also recommend that the Department use the maximum allowable amount of recycled glass for all proposed asphalt construction. In addition, we recommend that park benches and picnic tables made from recycled material be used. Aloha Plastics Recycling, a company on Maui, makes sturdy and comfortable picnic tables and benches from recycled milk jugs. We urge the Department of Design and Construction to consider these products in this and future projects. Using a local, environmentally friendly company stimulates the local economy, reducing our reliance on mainland manufacturers, as well as demonstrating a commitment to sustainable development.

Additionally, we would urge implementation of energy efficiency and conservation measures as design features throughout the project. Thus, high efficiency lighting fixtures, as well as building design features that promote natural convective air circulation and landscaping for cooling should be employed. In addition, parking facilities should be pre-designed to provide recharging connections for the anticipated growing numbers of electric vehicles.

We thank you for the opportunity to review this draft Environmental Assessment.

Sincerely,

John Harrison
Environmental Review Coordinator

cc: OEQC
Glenn Kimura, Kimura International, Inc.
Aly El-Khadi, WRRC
James Moncur, WRRC
Niyati Ni, Environmental Center

DEPARTMENT OF PARKS AND RECREATION

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 10TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4182 • FAX: 527-5725 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

WILLIAM D. BALFOUR, JR.
DIRECTOR

EDWARD T. "SKIPPA" DIAZ
DEPUTY DIRECTOR

RECEIVED
SEP 26 2001

September 21, 2001

MEMORANDUM

TO: RAE M. LOUI, P. E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTENTION: GARY DOI

FROM: WILLIAM D. BALFOUR, JR., DIRECTOR

SUBJECT: WAIMANALO DISTRICT PARK MASTER PLAN DRAFT
ENVIRONMENTAL ASSESSMENT

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Waimanalo District Park Master Plan.

The Department of Parks and Recreation is in complete support of this Master Plan.

Should you have any questions, please contact Mr. John Reid, Planner, at 547-7396.

W. D. Balfour Jr.

WILLIAM D. BALFOUR, JR.
Director

WDB:cu (3476)

cc: Office of Environmental Quality Control
✓Mr. Glenn Kimura, Kimura International, Inc.
Mr. Don Griffin, Department of Design and Construction

DEPARTMENT OF DESIGN AND CONSTRUCTION

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P. E.
DIRECTOR

GEORGE T. TAMASHIRO, P. E.
DEPUTY DIRECTOR

ERIC G. CRISPIN, AIA
ASSISTANT DIRECTOR

October 30, 2001

TO: WILLIAM D. BALFOUR, JR., DIRECTOR
DEPARTMENT OF PARKS AND RECREATION

FROM: FOR RAE M. LOUI, P. E., DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE WAIMANALO DISTRICT PARK MASTER PLAN
TAX MAP KEY 4-1-09: 264, OAHU, KOOLAUPOKO DISTRICT

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan.

We acknowledge your support for the master plan and appreciate your input to the environmental assessment process.

RML:ei

✓cc: Kimura International, Inc.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P. E.
DIRECTOR

GEORGE T. TAMASHIRO, P. E.
DEPUTY DIRECTOR

ERIC G. CRISPIN, AIA
ASSISTANT DIRECTOR

October 30, 2001

Mr. John Harrison
Environmental Review Coordinator
Environmental Center
University of Hawaii
2500 Dole Street, Kruass Annex 19
Honolulu, Hawaii 96822

Dear Mr. Harrison:

Subject: Draft Environmental Assessment (EA) for the Waimanalo District Park Master Plan, Tax Map Key 4-1-09: 264, Oahu, Koolaupoko District

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan and for your comments of September 21, 2001.

Traffic

The EA acknowledges that special events may put a strain on local roadways, resulting in periodic traffic jams. The State's Department of Transportation and its consultant are currently studying traffic conditions on Kalanianaole Highway and connector roads, including the intersection affecting Hihimanu Street, as well as various proposals to address safety and capacity issues.

Wastewater

The proposed septic tank and leach field system is capable of collecting and treating on-site wastewater. Regional actions to correct deficiencies at the Waimanalo wastewater treatment plant are beyond the scope of this EA.

Miscellaneous

Your recommendations regarding use of recycled material and energy-efficient construction measures have been transmitted to the project's architect and the Department of Design and Construction's project manager.

We appreciate your input to the environmental assessment process.

Very truly yours,

FOR RAE M. LOUI, P. E.
Director

RML:ei

cc: Kimura International, Inc.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4584 Fax: (808) 523-4567
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P. E.
DIRECTOR

GEORGE T. TAMASHIRO, P. E.
DEPUTY DIRECTOR

ERIC G. CRISPIN, AIA
ASSISTANT DIRECTOR

October 30, 2001

TO: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: FOR RAE M. LOUI, P. E., DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE
WAIMANALO DISTRICT PARK MASTER PLAN
TAX MAP KEY 4-1-09: 264, OAHU, KOOLAUPOKO DISTRICT

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan and for your comments of September 18, 2001. We offer the following response to your concerns:

Koolaupoko Sustainable Communities Master Plan

The park expansion area represents a long-term vision of the Waimanalo community. While the master plan lays out the development potential of this area, this phase of development is considered part of the long-term future and lies outside the scope of the present environmental assessment. Should expansion plans become more concrete at a later date, a separate environmental assessment would be required. More detailed analysis and justification of proposed facilities would be appropriate then.

Zoning

At this time, all proposed, new structures are less than 25 feet high and do not encroach into the 30-foot front yard setback and/or 15-foot side yard setback. Table 12 of the draft EA calculates parking requirements for the existing and proposed facilities based on standards found in the Land Use Ordinance. Based on the published standards, the number of off-street parking stalls is sufficient to accommodate the master plan's parking requirement.

Engineering

The drainage plan is shown in Figure 8. Drainage and storm water quality reports will be submitted with construction plans for the Department of Planning and Permitting's approval

Wastewater

The EA discusses the need for new septic tanks and leach fields to collect and treat wastewater. New sewer facilities are shown in Figure 11, the Ultimate Site Utilities Plan.

We appreciate your input to the environmental assessment process.

RML:ei

✓cc: Kimura International, Inc.

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

2001/CLOG-3563(RY)

September 18, 2001

Mr. Glenn Kimura
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: Draft Environmental Assessment for Waimanalo District Park Master Plan
Tax Map Key 4-1-9: 264 and 266, Waimanalo, Hawaii

We have reviewed the draft environmental assessment and have the following comments to offer:

A. City & County of Honolulu General Plan and Koolaupoko Sustainable Communities Plan

The project is consistent with the City's General Plan and the Koolaupoko Sustainable Communities Plan (SCP).

The SCP indicates the existing park site as a park resource under Section 3.3 "Community-Based Parks". However, the expansion area proposed on Parcel 266 appears to be intended for agricultural and related uses, and other compatible non-urban/non-rural uses. Expansion of the district park into Parcel 266 may be inconsistent with the current vision of the SCP. We recommend further analysis of this aspect of the proposed and the presentation of its justification.

B. Zoning

1. The project site is not within the Special Management Area.

2. The current proposals are situated on land zoned P-2 General Preservation District. The height limit for the P-2 District is 25 feet, provided height setbacks are met. A waiver for public uses and structures will be required for new structures more than 25 feet high. If a waiver is required, it should be mentioned in the "Permits Required" section of the final environmental assessment.

3. A waiver will also be required for new structures that encroach into the 30-foot front yard setback and/or 15-foot side yard setback.

4. The number of required off-street parking spaces should be recalculated for the new proposals. If the existing parking lot does not provide the required parking spaces, a waiver will be required.

C. Engineering

The master plan should include details of the drainage system and applicable storm water quality facilities in accordance with the "Rules Related to Storm Drainage Standards.

In addition, drainage and storm water quality reports will be required when construction and/or grading plans are submitted to the DPP for plan approval.

D. Wastewater

The municipal sewer system does not service the site and we are not aware of any plans to sewer the area. Septic tanks and leach fields will need to be installed to collect and treat the wastewater.

Thank you for the opportunity to comment. If you have any questions, please contact Raymond Young of our staff at 527-5839.

Sincerely yours,

for RANDALL K. FUJIKI
Director of Planning and Permitting

RKF:mo
Doc 115627

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOAPAKA STREET, SUITE H425 • HONOLULU, HAWAII 96819-1869
TELEPHONE: (808) 831-7761 • FAX: (808) 831-7750 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

ATTILIO K. LEONARDI
FIRE CHIEF

JOHN CLARK
DEPUTY FIRE CHIEF

September 13, 2001

TO: RAE M. LOUI, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTENTION: GARY DOI

FROM: ATTILIO K. LEONARDI, FIRE CHIEF

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
WAIMANALO DISTRICT PARK MASTER PLAN
OAHU, KOOLAUPOKO DISTRICT
TMK: 4-1-009: 264

We received a letter dated August 20, 2001, from Glenn Kimura of Kimura International, Inc., requesting that the Honolulu Fire Department (HFD) review and comment on the above-mentioned project.

The HFD requests that the following be complied with for the new multi-sport building:

1. Provide a private water system where all appurtenances, hydrant spacing, and fire flow requirements meet Board of Water Supply standards.

2. Provide a fire department access road within 150 feet of the first floor of the most remote structure. Such access shall have a minimum vertical clearance of 13 feet 6 inches, be constructed of an all-weather driving surface complying with Department of Transportation Services (DTS) standards, capable of supporting the minimum 60,000 pound weight of our fire apparatus, and with a gradient not to exceed 20%. The unobstructed width of the fire apparatus access road shall meet the requirements of the appropriate county jurisdiction. All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround having a radius complying with DTS standards.

3. Submit civil drawings to the HFD for review and approval.

Should you have any questions, please call Acting Battalion Chief Lloyd Rogers of our Fire Prevention Bureau at 831-7778.

Attilio K. Leonardi

ATTILIO K. LEONARDI
Fire Chief

AKL/SK:jo

cc: Glenn Kimura, Kimura International, Inc.
Office of Environmental Quality Control

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

September 24, 2001

TO: RAE M. LOUI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

FROM: for CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER

SUBJECT: YOUR TRANSMITTAL OF AUGUST 20, 2001 OF THE DRAFT ENVIRONMENTAL ASSESSMENT FOR THE WAIMANALO DISTRICT PARK MASTER PLAN, WAIMANALO, TMK: 4-1-09: 264, 266

Thank you for the opportunity to review the subject document for the proposed park master plan.

We have the following comments to offer:

1. The existing off-site water system is presently adequate to accommodate the park improvements.

2. The availability of water will be determined when the Building Permit Applications are submitted for our review and approval. If water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.

3. The document correctly indicates there is one existing water service consisting of a 4-inch compound water meter serving the park at TMK: 4-1-09: 264. However, it should also indicate there is an 8-inch Detector Check fire meter off this same service. In addition, there is an existing water service consisting of a 5/8-inch water meter serving TMK: 4-1-09: 266.

4. If an additional or replacement three-inch or larger water meter is required, the construction drawings showing the installation of the meter should be submitted for our review and approval.

5. The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

6. Board of Water Supply approved Reduced Pressure Principle Backflow Prevention Assemblies are required to be installed immediately after all water meters serving the site.

If you have any questions, please contact Scot Muraoka at 527-5221.

cc: Office of Environmental Quality Control
Kimura International

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 Fax: (808) 523-4567
Website: www.co.honolulu.hi.us

October 30, 2001

TO: CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

FROM: FOR RAE M. LOUI, P. E., DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE WAIMANALO DISTRICT PARK MASTER PLAN
TAX MAP KEY 4-1-09: 264, OAHU, KOOLAUPOKO DISTRICT

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan and for your comments of September 24, 2001. We offer the following response to your concerns:

We note that the off-site water system is able to accommodate park improvements, but determination of water availability will be made when building permit applications are submitted to the Board of Water Supply for review and approval.

The environmental assessment will be revised to include additional elements of the existing water service that were missing from the draft EA, notably, an 8-inch Detector Check fire meter and a 5/8-inch water meter serving the adjacent State-owned property.

On-site fire protection requirements will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

We appreciate your input to the environmental assessment process.

RML:ei

cc: Kimura International, Inc.

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111
http://www.honolulupd.org
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JEREMY HARRIS
MAYOR

LEE D. DONOHUE
CHIEF

MICHAEL CARVALHO
ROBERT AU
DEPUTY CHIEFS

OUR REFERENCE CS-KP

September 12, 2001

TO: RAE M. LOUI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTENTION: GARY DOI

FROM: LEE D. DONOHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: WAIMANALO DISTRICT PARK MASTER PLAN
DRAFT ENVIRONMENTAL ASSESSMENT

Thank you for the opportunity to review and comment on the subject project. We have the following concerns and recommendations:

We would like to recommend that the principles of crime prevention through environmental design (CPTED) be applied as a means of minimizing criminal activity.

In spite of mitigation measures, construction-related dust, noise, and traffic complaints are inevitable and will have an impact on calls for police service.

As the different phases of the master plan are completed, we are concerned that the additional park users will have an impact on the traffic and parking congestion in the area.

We would like to further recommend that Lieutenant John Thompson or Sergeant Barry Chang of District 4 be contacted at 247-2166 relative to our above-listed concerns.

If there are any questions, please call Ms. Carol Sodetani of the Support Services Bureau at 529-3658.

LEE D. DONOHUE
Chief of Police

By Eugene Uemura
EUGENE UEMURA
Assistant Chief of Police
Support Services Bureau

cc: OEQC
✓Kimura International, Inc.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P. E.
DIRECTOR

GEORGE T. TAMASHIRO, P. E.
DEPUTY DIRECTOR

ERIC G. CRISPIN, AIA
ASSISTANT DIRECTOR

October 30, 2001

TO: ATTILIO K. LEONARDI, FIRE CHIEF
HONOLULU FIRE DEPARTMENT

FROM: FOR RAE M. LOUI, P. E., DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE WAIMANALO DISTRICT PARK MASTER PLAN
TAX MAP KEY 4-1-09: 264, OAHU, KOOLAUPOKO DISTRICT

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan and for your comments of September 13, 2001. We offer the following response to your concerns:

The water system for fire protection, including hydrant spacing, fire flow requirements, and appurtenances, will meet the Board of Water Supply's standards.

A roadway capable of providing emergency access will be provided within 150 feet of the most remote structure. All such roadways will be able to accommodate emergency fire vehicles and designed in accordance with Department of Transportation Services' standards.

Civil engineering plans will be submitted to the Honolulu Fire Department for review and approval.

We appreciate your input to the environmental assessment process.

RML:ei

✓ cc: Kimura International, Inc.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P. E.
DIRECTOR

GEORGE T. TAMASHIRO, P. E.
DEPUTY DIRECTOR

ERIC G. CRISPIN, AIA
ASSISTANT DIRECTOR

October 30, 2001

TO: LEE D. DONOHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

ATTENTION: ASSISTANT CHIEF EUGENE UEMURA

FROM: FOR RAE M. LOUI, P. E., DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE WAIMANALO DISTRICT PARK MASTER PLAN
TAX MAP KEY 4-1-09: 264, OAHU, KOOLAUPOKO DISTRICT

Thank you for reviewing the draft EA for the Waimanalo District Park Master Plan and for your comments of September 12, 2001. We offer the following response to your concerns:

Crime Prevention through Environmental Design (CPTED)

The EA discusses several measures that apply CPTED principals to the layout and design of park facilities, including siting of a new outdoor pavilion in an open area near the entrance of the park for better visibility and clustering of buildings so that occupants can better monitor activity on the premise.

Impact on Police Calls

The EA will note that increased calls for police service are inevitable, given higher levels of park usage.

Traffic and Parking Congestion

The EA acknowledges that special events may put a strain on local roads. The State's Department of Transportation and its consultant are currently studying traffic conditions on Kalanianaole Highway and connector roads and various proposals to address safety and capacity. The master plan provides for restriping of all parking lots and expansion of the main parking lot. Additional measures, such as facility programming and scheduling will also be considered.

We appreciate your input to the environmental assessment process.

RML:ei

✓cc: Kimura International, Inc.

APPENDIX

Chapter 6E-8 Historic Preservation Review Correspondence:

Letter from Kimura International, Inc. to Mr. Don Hibbard, Department of Land and Natural Resources, Historic Preservation Division, dated January 26, 2001

Letter from Department of Land and Natural Resources, Historic Preservation Division to Kimura International, dated February 20, 2001

KIMURA INTERNATIONAL

Friday, January 26, 2001

Mr. Don Hibbard, Administrator
State Historic Preservation Division
Dept. of Land and Natural Resources
Kakuhihewa Building
601 Kamokila Blvd., Suite 555
Kapolei, HI 96707

Dear Mr. Hibbard,

Subject: Master Plan for Waimanalo District Park, Koolaupoko, Oahu, Hawaii
TMK: 4-1-09: 264, 25.3 acres

We have been contracted by the Honolulu Department of Design and Construction to prepare an environmental assessment for a master plan of Waimanalo District Park. The 25.3-acre park is located at 41-415 Hihimanu Street and coincides with the boundaries of TMK: 4-1-09: 264 (see attached tax map). The plan is the result of the City's community vision process and is intended to guide future improvements at the park. Although the plan shows long-term acquisition and development of an abutting property, the environmental assessment will only cover anticipated development within the existing park boundaries (see colored portion of the attached plan).

I would appreciate your assistance in identifying previously discovered prehistoric and historic remains on or in the vicinity of the subject parcel. Based on an internet search of SHPD's library, there have been at least two prior archaeological assessments of neighboring properties, as indicated in the following references:

O-01292, 1993, Archaeological Surface Assessment and Monitoring of 12.4 acre parcel for Hawaii Job Corps Center, Waimanalo, O'ahu, Sinoto, Aki; Pantaleo, Jeffrey, 1-4-1-009: 001

O-00545, 1983, Waimanalo Watershed project and Archaeological Survey of the Solid Waste Collection Site, Waimanalo, Oahu, Sue, Roy K.; Yent, Martha; Ota, Jason, 1-4-1-009: 266

If you have any questions or require additional information, please call me at 944-8848.

Thank you.

Sincerely,
KIMURA INTERNATIONAL, INC.

Nancy Nishikawa

1600 Kapiolani Blvd., Suite 1610
Honolulu, Hawaii 96814
Tel (808) 944-8848 • Fax (808) 941-8999

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

February 20, 2001

Nancy Nishikawa
Kimura International
1600 Kapiolani Blvd., Suite 1610
Honolulu, Hawaii 96814

LOG NO: 26961
DOC NO: 0102EJ07

Dear Ms. Nishikawa:

SUBJECT: Chapter 6E-8 Historic Preservation Review – Master Plan for Waimanalo District Park
Waimanalo, Ko`olaupoko, O'ahu
TMK: 4-1-009:264

Thank you for the opportunity to provide comment during preparation of an environmental assessment for a master plan for the Waimanalo District Park. Our review is based on historic reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was made of the subject parcel.

The Master Plan proposes the phasing of improvements in three stages: short term (1-3 years), mid-term (3-5 years), and long term (5-10 years). Improvements consist of repair, reconstruction and refurbishing of existing facilities; expansion of parking lots, lighting, landscaping and the design and construction of a multi-sport building, an open pavilion (*hale*), a skateboard park, a streamside *hale*, and a 50-meter swimming pool with bleachers.

A review of our records shows that there are no known historic sites at the project location, however no archaeological survey has been conducted for the district park parcel. An archaeological surface assessment survey and monitoring of subsurface excavations was conducted between 1993 and 1994 at the Hawaii Job Corps Center parcel which is located on the western boundary of the district park (TMK: 4-1-009:001 Lot A). The archaeological investigation did not locate any surface or subsurface cultural remains. It was noted that the area had previously been farmed and mechanically cleared. An archaeological survey was also conducted at parcel TMK: 4-1-009:266 located on the eastern boundary of the district park. Again, previous mechanical disturbance and cultivation negated the findings of historic sites.

Aerial photographs of the District Park parcel from the late 1970s shows that the area was previously cleared similar to the other adjoining parcels. Since no significant historic sites were found during ground disturbing activities associated with the construction and development of the existing facilities, we believe that the proposed repairs and refurbishing to the existing facilities will have "no effect" on significant historic sites. We request the opportunity to review any construction plans or other relevant materials for all new facilities or new improvements proposed in the master plan in order to provide an assessment if any, these projects would have on significant historic sites

Should you have any questions, please feel free to call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

EJ:jk